



## CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

<b>Purpose Permit number:</b>	CPS 7898/1
<b>Permit Holder:</b>	Commissioner of Main Roads Western Australia
<b>Duration of Permit:</b>	From 3 May 2018 to 3 May 2023

### ADVICE NOTE:

The funds referred to in condition 8 of this Permit are intended for the purchase of at least 39 hectares of native vegetation for conservation that:

- Contains a high level of biological diversity;
- Contains suitable foraging habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*), Baudin's cockatoo (*Calyptorhynchus baudinii*), forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*); and
- Is significant as a remnant in an area that has been extensively cleared.

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

#### 1. Purpose for which clearing may be done

Clearing for the purpose of road widening.

#### 2. Land on which clearing is to be done

Lot 6058 on Deposited Plan 138208, Kojonup  
Lot 7137 on Deposited Plan 80883, Kojonup  
Lot 778 on Deposited Plan 102808, Kojonup  
Lot 250 on Deposited Plan 245591, Kojonup  
Lot 502 on Deposited Plan 301141, Kojonup  
Lot 2 on Deposited Plan 19131, Kojonup  
Road reserve – Pin 1386522, Lumeah  
Road reserve – Pin 1386628, Lumeah  
Road reserve – Pin 1386627, Kojonup  
Road reserve – Pin 1386629, Kojonup  
Road reserve – Pin 1386650, Kojonup  
Road reserve – Pin 1386651, Kojonup  
Road reserve – Pin 1386652, Kojonup  
Road reserve – Pin 1386653, Kojonup  
Road reserve – Pin 1386654, Kojonup  
Road reserve – Pin 1386655, Kojonup  
Road reserve – Pin 1386657, Kojonup  
Road reserve – Pin 1386658, Kojonup  
Road reserve – Pin 1386659, Kojonup  
Road reserve – Pin 1386660, Kojonup  
Road reserve – Pin 1386661, Kojonup  
Road reserve – Pin 1386662, Kojonup  
Road reserve – Pin 1386664, Kojonup

Road reserve – Pin 1386665, Kojonup  
Road reserve – Pin 1386666, Kojonup  
Road reserve – Pin 1386667, Kojonup  
Road reserve – Pin 1386668, Kojonup  
Road reserve – Pin 1386669, Kojonup  
Road reserve – Pin 1386670, Kojonup  
Road reserve – Pin 1386671, Kojonup  
Road reserve – Pin 1386672, Kojonup  
Road reserve – Pin 1386673, Kojonup  
Road reserve – Pin 1386674, Kojonup  
Road reserve – Pin 1386675, Kojonup  
Road reserve – Pin 1386676, Kojonup  
Road reserve – Pin 11010374, Kojonup  
Road reserve – Pin 11044053, Kojonup  
Road reserve – Pin 11044054, Kojonup  
Road reserve – Pin 11044055, Kojonup  
Road reserve – Pin 11044056, Kojonup  
Road reserve – Pin 11050029, Kojonup  
Road reserve – Pin 11050040, Kojonup  
Road reserve – Pin 1141180, Kojonup

**3. Area of clearing**

The Permit Holder must not clear more than 5.5 hectares of native vegetation within the combined areas shaded yellow on attached Plan 7898/1 (a), Plan 7898/1 (b), Plan 7898/1 (c), Plan 7898/1 (d), Plan 7898/1 (e), Plan 7898/1 (f) and Plan 7898/1 (g).

**4. 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.

**5. Type of clearing authorised**

This Permit authorises the Permit Holder to clear native vegetation for the activities described in condition 1 of this Permit to the extent that the Permit Holder has the power to carry out works involving clearing for those activities under the *Main Roads Act 1930* or any other written law.

**6. 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.

**7. Dieback and Weed management**

When undertaking any clearing authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the combined areas shaded yellow on attached Plan 7898/1 (a), Plan 7898/1 (b), Plan 7898/1 (c), Plan 7898/1 (d), Plan 7898/1 (e), Plan 7898/1 (f) and Plan 7898/1 (g);
- (b) ensure that no *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.

## 8. Offset

- (a) Prior to undertaking any clearing authorised under this Permit and no later than 4 May 2019, the Permit Holder shall provide documentary evidence to the CEO that funding of \$174,330 has been transferred to the Department of Water and Environmental Regulation for the purpose of establishing or maintaining native vegetation.
- (b) Within nine months of the commencement of clearing, the Permit Holder must identify at least ten parcels of land that could be acquired for conservation utilising the funds provided under condition 8(a).
- (c) The parcels of land identified under condition 8(b) must each:
  - (i) be located within the Shire of Kojonup; and
  - (ii) contain at least 39 hectares of vegetation that provides suitable foraging habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*), Baudin's cockatoo (*Calyptorhynchus baudinii*), and forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*).
- (d) Within nine months of the commencement of clearing under this Permit, the Permit Holder must provide to the CEO the locations of the parcels of land identified under condition 8(b) of this Permit recorded as a shapefile consisting of polygons using the GDA94 coordinate system

## 9. Record keeping

The Permit Holder must maintain the following records:

- (a) In relation to clearing:
  - (i) the location where 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;
  - (ii) the date(s) that clearing occurred;
  - (iii) the size of the area cleared (in hectares);
  - (iv) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 6 of this Permit; and
  - (v) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 7 of this Permit.

## 10. 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 9 of this Permit; and
  - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit has been undertaken, a written report confirming that no clearing under this Permit has been undertaken, must be provided to the CEO on or before 30 June of each year.
- (c) Prior to 3 February 2023, the Permit Holder must provide to the CEO a written report of records required under condition 9 of this Permit where these records have not already been provided under condition 10(a) of this Permit.

## 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; and

**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 species-led ecological impact and invasiveness ranking summary, regardless of ranking; or
- (c) not indigenous to the area concerned.



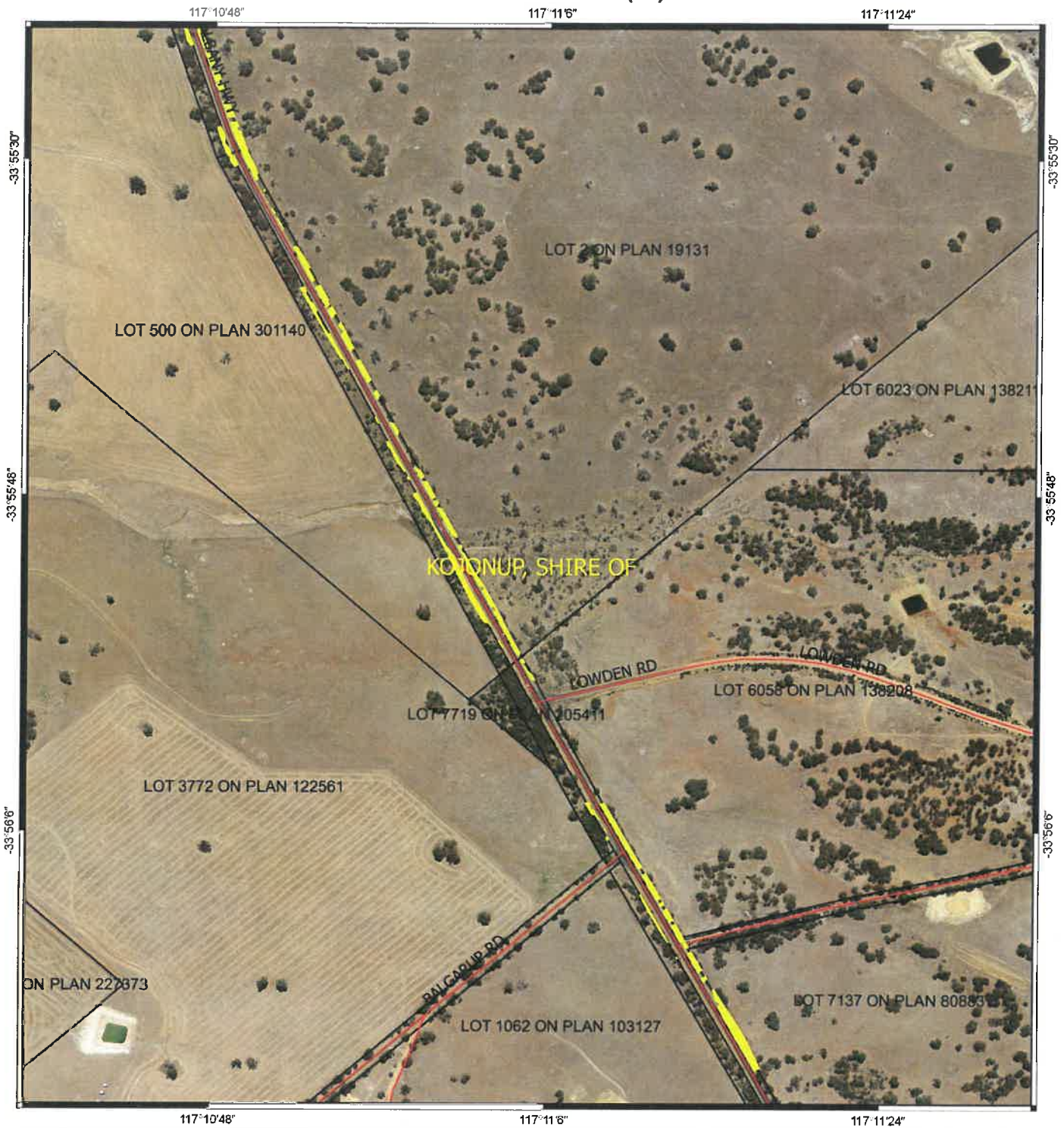
---

Jane Clarkson  
MANAGER  
CLEARING REGULATION

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

3 April 2018

# Plan 7898/1 (a)



## Legend

- Areas approved to clear
- Roads
- Local Government Area
- WANow\_Imagery
- Cadastre



MGA94  
Geocentric Datum of Australia 1994

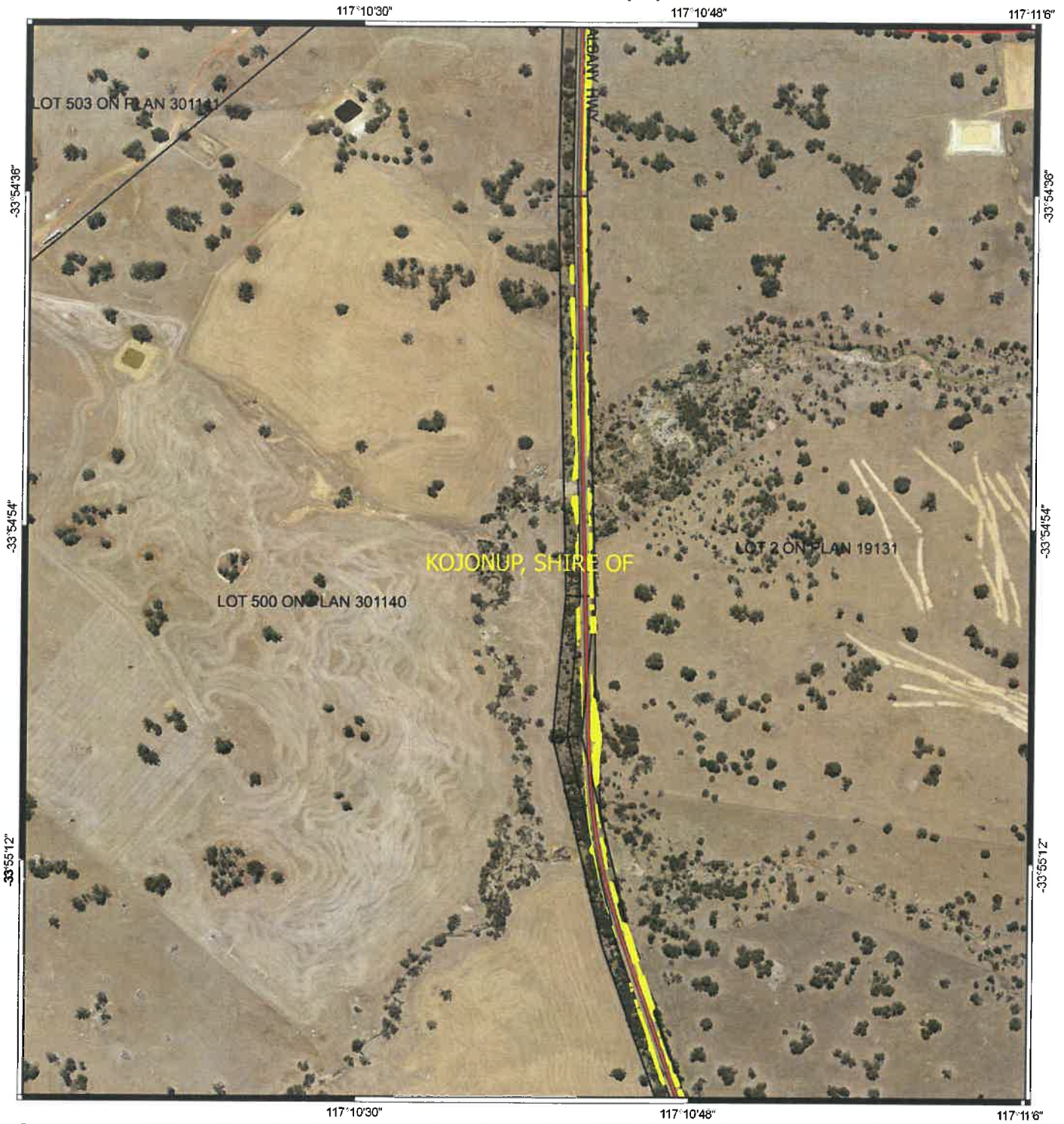
*J. Clarkson*

Date: 3/4/2018





**J Clarkson**  
Officer with delegated authority under Section 20  
of the Environmental Protection Act 1986



# Plan 7898/1 (b)



## Legend

-  Areas approved to clear
  -  Roads
  -  Local Government Area
  -  Cadastre
- WANow\_Imagery



MGA 94  
Geocentric Datum of Australia 1994

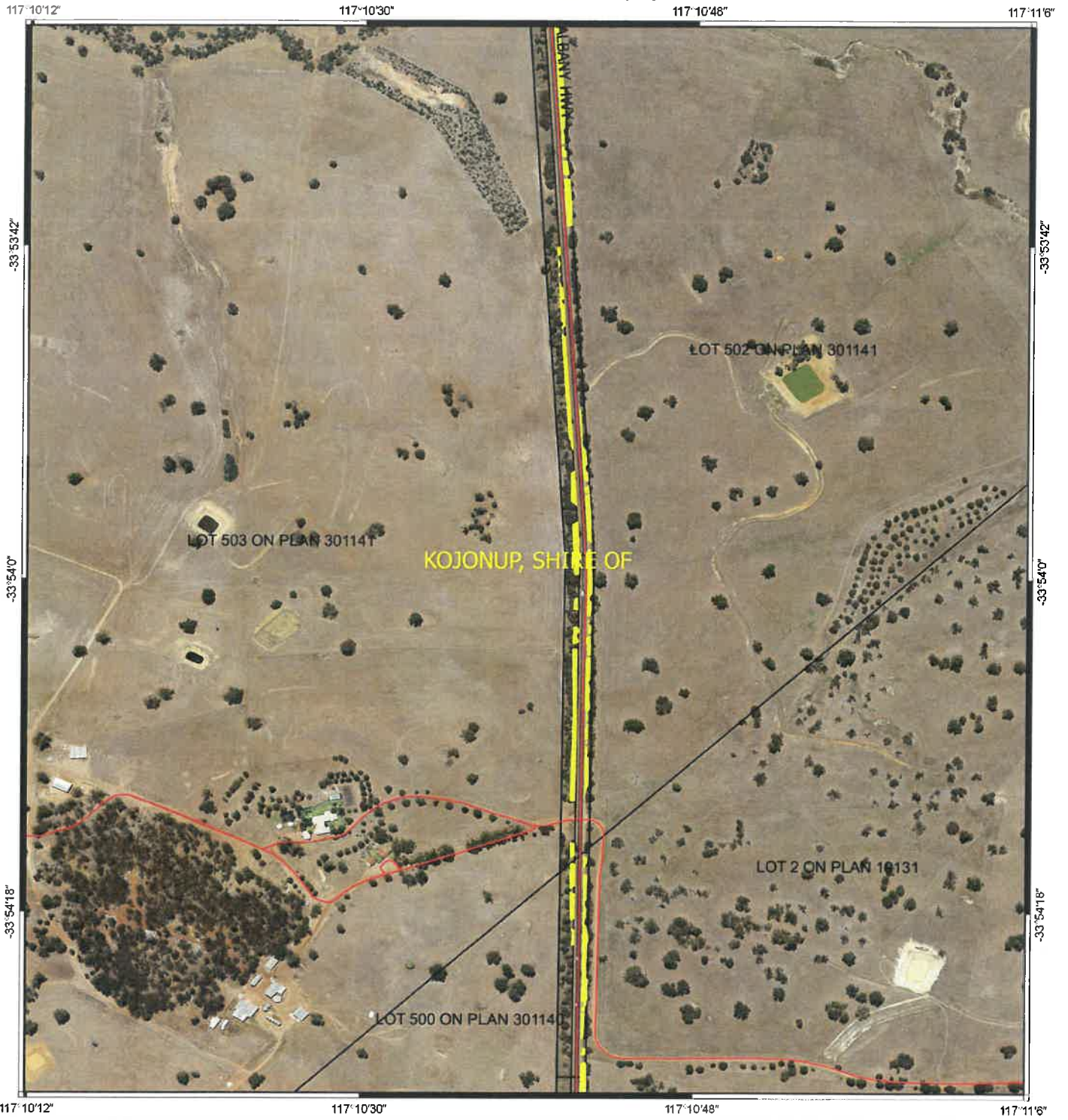
Date: 3/4/2018

J. Clarkson  
Officer with delegated authority under Section 20  
of the Environmental Protection Act 1986






GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 7898/1 (c)



## Legend

-  Areas approved to clear
-  Roads
-  Local Government Area
- WANow\_Imagery
-  Cadastre



MGA 94  
Geocentric Datum of Australia 1994

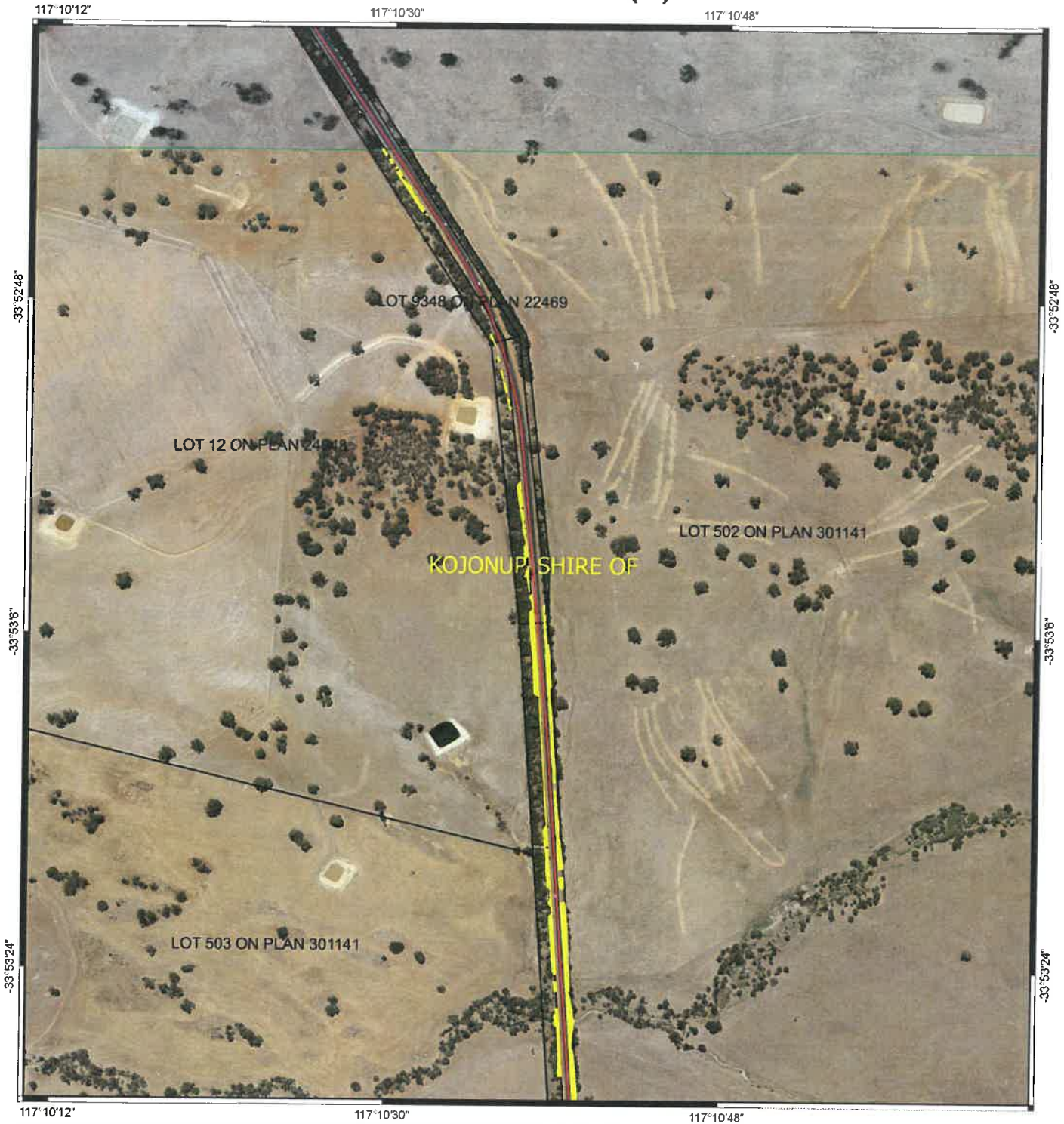
*J Clarkson*

Date 3/4/2018





**J Clarkson**  
Officer with delegated authority under Section 20  
of the Environmental Protection Act 1986



# Plan 7898/1 (d)



## Legend

-  Areas approved to clear
-  Roads
-  Local Government Area
-  WANow\_Imagery
-  Cadastre



MGA 84  
Geocentric Datum of Australia 1994

*J. Clarkson*

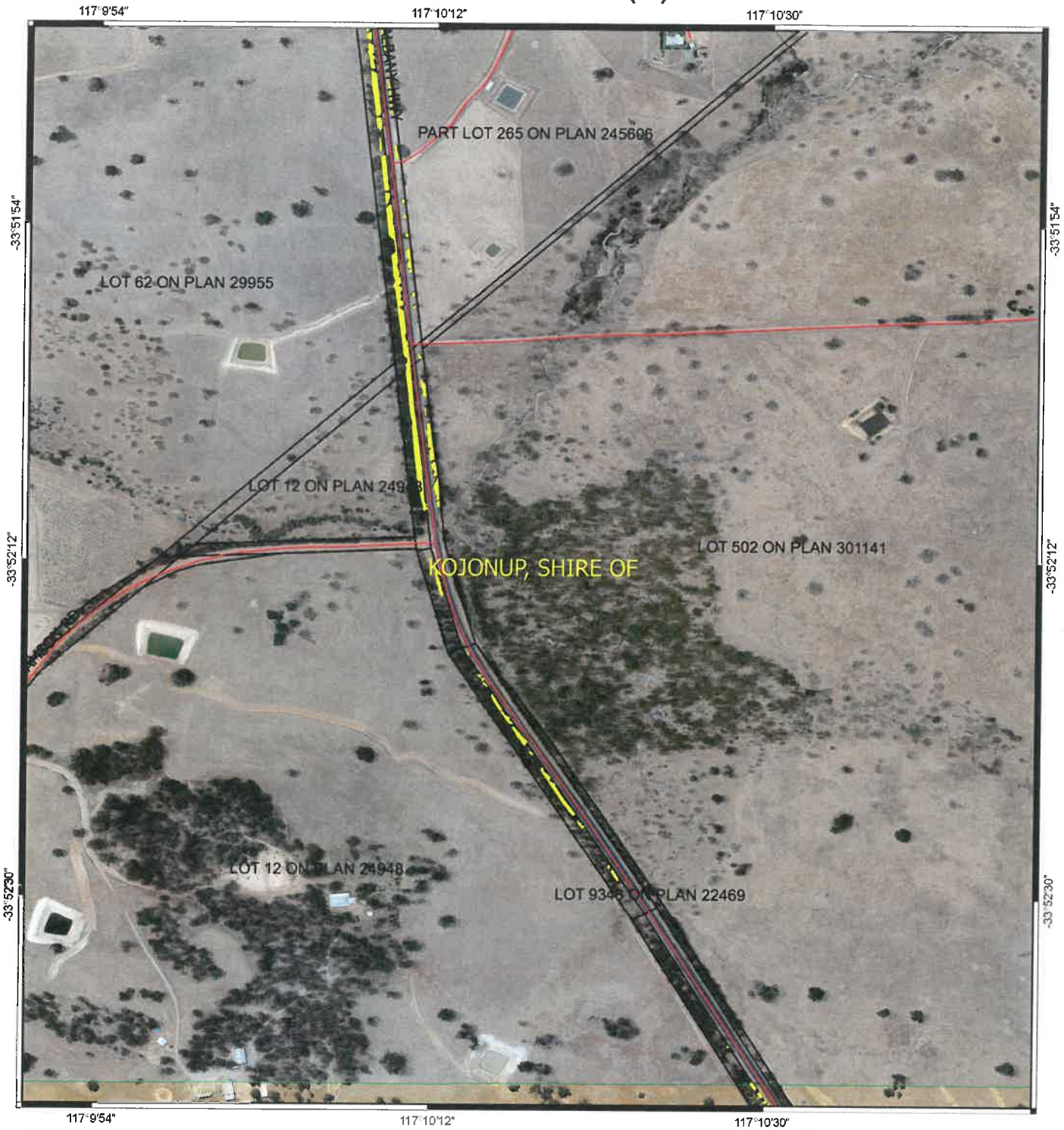
Date: 3/4/2018

J Clarkson  
Officer with delegated authority under Section 20  
of the Environmental Protection Act 1986









# Plan 7898/1 (e)



## Legend

-  Areas approved to clear
-  Roads
-  Local Government Area
-  WANow\_Imagery
-  Cadastre



MGA 94  
Geocentric Datum of Australia 1994

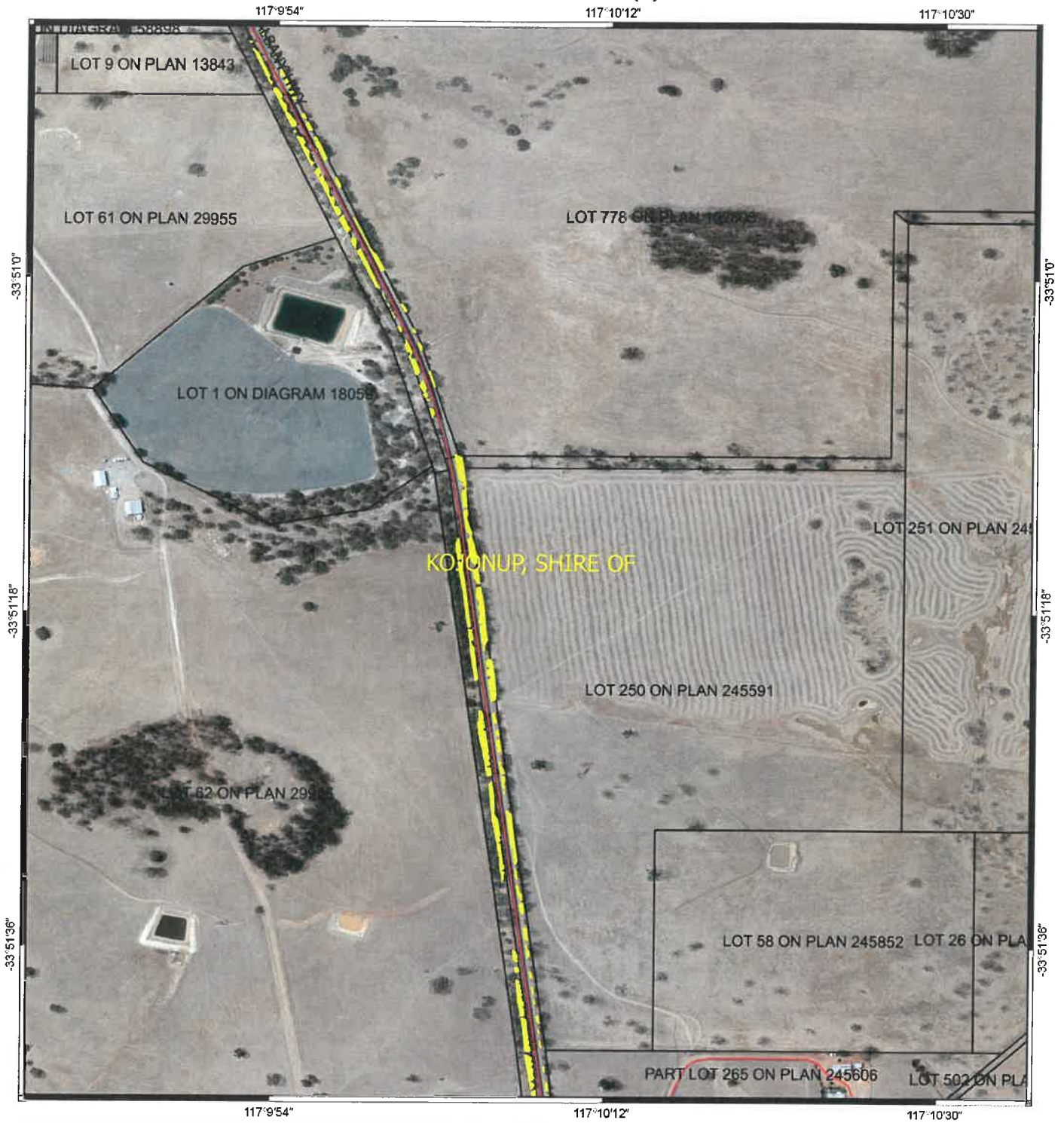
*J Clarkson*

Date: 3/4/2018





J Clarkson  
Officer with delegated authority under Section 20  
of the Environmental Protection Act 1986



# Plan 7898/1 (f)



## Legend

-  Areas approved to clear
-  Roads
-  Local Government Area  
WANow\_Imagery
-  Cadastre



MGA 94  
Geocentric Datum of Australia 1994

*J Clarkson*

Date: 3/4/2018

J Clarkson

Officer with delegated authority under Section 20  
of the Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA





## 1. Application details

### 1.1. Permit application details

Permit application No.: 7898/1  
Permit type: Purpose Permit

### 1.2. Applicant details

Applicant's name: Commissioner of Main Roads Western Australia  
Application date: 28 November 2017

### 1.3. Property details

Properties: Various  
Project name: Albany Highway – SLK 254.9 to 266 – Kojonup South widening  
Local Government Authority: Shire of Kojonup  
Localities: Kojonup and Lumeah

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose Category:
5.5		Mechanical Removal	Road construction or upgrades

### 1.5. Decision on application

**Decision on Permit Application:** Grant  
**Decision Date:** 3 April 2018  
**Reasons for Decision:** The clearing permit application has been assessed against the clearing principles, planning instruments and other relevant matter in accordance with section 51O of the *Environmental Protection Act 1986* (EP Act). It has been concluded that the proposed clearing is at variance to principles (a), (b) and (e), and is not likely to be at variance to the remaining principles.

During the assessment of the application, the applicant amended the application area from 8.03 hectares to 5.5 hectares to minimise environmental impacts (see Section 3 below).

Based on the assessment of the amended application area, the Delegated Officer determined that the proposed clearing will result in the following significant residual impacts:

- The loss of up to 5.5 hectares of foraging habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*), Baudin's cockatoo (*Calyptorhynchus baudinii*), and forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*);
- The loss of up to 5.5 hectares of native vegetation that is significant as a remnant in an area that has been extensively cleared;
- The loss of 5.5 hectares of native vegetation that provides a high level of biological diversity.

The Delegated Officer noted that the proposed impacts will occur over a distance of approximately 11 kilometres.

After consideration of the above, the Delegated Officer determined that:

- The acquisition and conservation of 39 hectares of native vegetation that is significant as a remnant in an area that has been extensively cleared, contains a high level of biodiversity and contains suitable foraging habitat for Carnaby's cockatoo, Baudin's cockatoo, and forest red-tailed black cockatoo will counterbalance the remaining significant residual impacts; and
- Implementing weed and dieback hygiene measures will mitigate the risk of degradation of adjoining native vegetation.

The Delegated Officer also took into consideration that upgrades to the road will provide a public benefit including improved road safety.

Given the above, the Delegated Officer decided to grant a clearing permit subject to weed and dieback management and offset conditions.

## 2. Site Information

Vegetation Description	The application area intersects two mapped Beard vegetation associations (Shepherd et al., 2001):
	<ul style="list-style-type: none"> <li>• 4 – Medium woodland; marri &amp; wandoo (approximately 95 per cent of the application area); and</li> <li>• 968 – Medium woodland; jarrah, marri &amp; wandoo (approximately 5 per cent of the application area).</li> </ul>

A flora and fauna survey commissioned by the applicant recorded three vegetation types within the application area:

- *Corymbia calophylla* woodland (approximately 2.93 hectares);
- *Eucalyptus rudis* woodland (approximately 1.92 hectares); and
- *Eucalyptus wandoo* woodland (approximately 0.65 hectares) (Rathbone, 2017).

**Clearing Description:**

The proposed clearing of 5.5 hectares of native vegetation is for the purpose of widening Albany Highway to increase road safety.

**Vegetation Condition:**

The flora and fauna survey identified the vegetation under application as being in the following condition:

- Good (0.13 hectares);
  - Degraded to Good (1.32 hectares); and
  - Degraded (4.05 hectares).
- (Rathbone, 2017).

Vegetation condition ratings are based on the scale described by Keighery (1994) and are defined as follows:

- Completely Degraded: The structure of the vegetation is no longer intact and the area is completely or almost completely without native species.
- Degraded: Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management.
- Good: Vegetation structure significantly altered by very obvious signs of multiple disturbance. Retains basic vegetation structure or ability to regenerate it.
- Very Good: Vegetation structure altered; obvious signs of disturbance.
- Excellent: Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species.
- Pristine: Pristine or nearly so, no obvious signs of disturbance.

**Comment:**

The local area referred to in the below assessment is defined as the area within a ten kilometre radius of the application area.

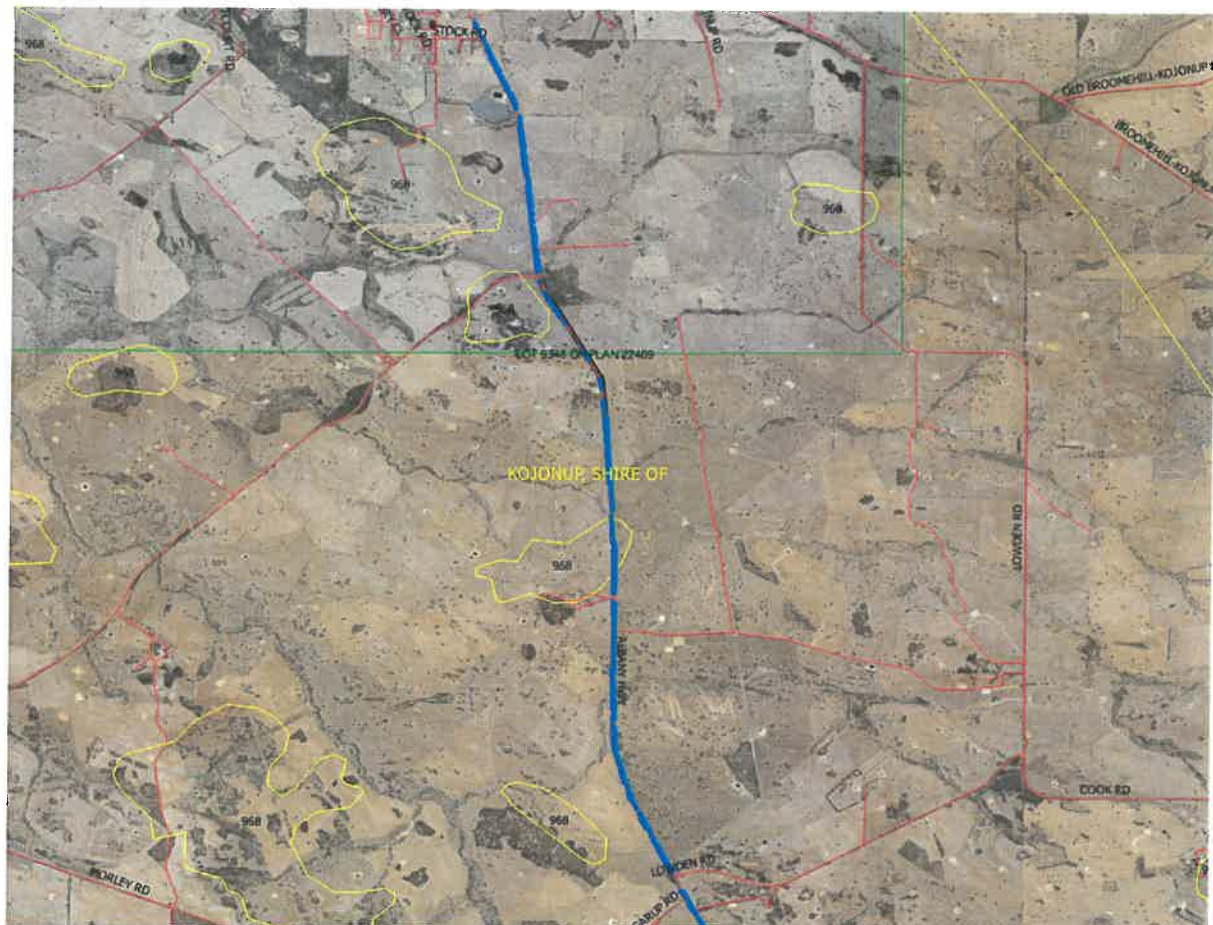


Figure 1. Application area (blue) and mapped Beard vegetation associations (yellow).

### 3. Minimisation and mitigation measures

The applicant initially applied to clear 8.03 hectares of native vegetation, whereby a preliminary assessment of that area identified the following impacts:

- loss of up to 8.03 hectares of native vegetation that comprises a high level of biological diversity;
- loss of up to 8.03 hectares of habitat for Carnaby's cockatoo, Baudin's cockatoo and forest red-tailed black cockatoo (Collectively known as black cockatoos), including six trees with suitable breeding hollows;
- loss of up to 8.03 hectares of habitat for the western rosella (inland) including 11 trees with suitable breeding hollows;
- loss of up to 0.91 hectares of the Eucalypt Woodlands of the Western Australian Wheatbelt TEC; and
- loss of up to 8.03 hectares of native vegetation that is significant as a remnant in an area that has been extensively cleared.

On 13 March 2018, the applicant amended the application area from 8.03 hectares to 5.5 hectares. The applicant advised that the amendment has avoided/minimised a number of the abovementioned impacts via the following measures:

- The retention of all trees containing suitable breeding hollows for black cockatoos;
- The retention of all trees containing suitable breeding hollows for the western rosella (inland) (*Platycercus icterotis xanthogenys*);
- Reduced the extent of impact to the Eucalypt Woodlands of the Western Australian Wheatbelt TEC from 0.91 hectares to 0.035 hectares, with the potential for 100 per cent retention of the TEC when the final road design is completed;
- Reduced the extent of suitable foraging habitat for black cockatoos from 8.03 hectares to 5.5 hectares; and
- Reduced the extent of clearing a significant remnant within an extensively cleared area from 8.03 hectares to 5.5 hectares.

The applicant advised that the above avoidance and minimisation measures were achievable through the installation of safety barriers, steepening the batters and reducing the table drain depths, at an additional cost to the project of approximately \$500,000. The impact area has been minimised to the smallest area possible and limited to the road reserve.

The applicant has also provided a commitment to contributing funds for the acquisition of 39 hectares of native vegetation that provides significant foraging habitat for black cockatoos and is a significant remnant within an extensively cleared area (see Section 6).

### 4. Assessment of application against clearing principles

#### (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

##### Comments

##### **Proposed clearing is at variance to this principle**

The applicant commissioned a single season flora and fauna survey (the Survey) for the application. The Survey was undertaken in November 2016 and covered the full width of the road reserve from SLK 254.9 to 266 as well as some small areas of adjacent private property. The total area of the Survey was 46.39 hectares (Rathbone, 2017).

Four vegetation types and 99 native flora taxa were recorded during the Survey (Rathbone, 2017). No rare or priority flora species were recorded during the Survey (Rathbone, 2017) and no significant impacts to rare or priority flora species are expected from the proposed clearing.

As discussed under Principle (d), three occurrences of the Eucalypt Woodlands of the Western Australian Wheatbelt threatened ecological community (TEC) were recorded within the application area (Rathbone, 2017). These occurrences are part of larger TEC remnants that encroach on the application area. Noting the limited extent and linearity of these occurrences (comprising a total of 0.035 hectares), the proposed clearing is not likely to significantly impact on the local extent of this TEC.

No other TECs or priority ecological communities (PEC) were recorded during the Survey (Rathbone, 2017) and no significant impacts to any other TECs or PECs are expected from the proposed clearing.

As discussed under Principle (b), the proposed clearing includes the loss of up to 5.5 hectares of significant foraging habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*), Baudin's cockatoo (*Calyptorhynchus baudinii*) and forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*). The applicant has amended the application area to exclude suitable breeding habitat for these species.

As outlined in the assessment under principle (e), Beard vegetation association 4, which is mapped over the majority of the application area, retains less than 30 per cent of its pre-European extent. The local area retains approximately five per cent native vegetation cover (approximately 2,600 hectares) and is highly fragmented. Therefore, it is expected that the condition of remaining vegetative remnants within the local area will not often exceed the condition of the vegetation under application.

Noting this and the presence of significant fauna habitat, the application area is considered to comprise a high level of biological diversity in the context of what remains in the local area.

Given the above, the proposed clearing is at variance to this principle.

Taking into account the applicant's avoidance and minimisation measures, it is considered that a suitable offset will counterbalance the loss of 5.5 hectares of vegetation that contains a high level of biological diversity. Section 6 provides further information on the adequacy of the offset provided.

**(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 indigenous to Western Australia.**

**Comments**

**Proposed clearing is at variance to this principle**

The Survey identified a total of four conservation significant fauna that were present or considered likely to occur within the application area, based on opportunistic field observations and the identification of habitats, including:

- western rosella (inland), listed as Priority 4 by the Department of Biodiversity, Conservation and Attractions (DBCA);
- Carnaby's cockatoo, classified as 'fauna that is rare or is likely to become extinct as endangered fauna' under the *Wildlife Conservation (Specially Protected Fauna) Notice 2017 (WC Notice)*;
- Baudin's cockatoo, classified as 'fauna that is rare or is likely to become extinct as endangered fauna' under the WC Notice; and
- forest red-tailed black cockatoo, classified as 'Fauna that is rare or is likely to become extinct as vulnerable fauna' under the WC Notice.

(Rathbone, 2017)

Of the four abovementioned fauna species, the forest red-tailed black cockatoo was observed during the Survey (Rathbone, 2017). Multiple small flocks (3-8 birds) were observed as well as extensive foraging evidence on marri throughout the larger survey area (Rathbone, 2017).

Carnaby's cockatoo, Baudin's cockatoo and forest red-tailed black cockatoo (collectively known as black cockatoos) forage on the seeds, nuts and flowers of a large variety of plants including proteaceous species (*Banksia*, *Hakea*, *Grevillea*), as well as *Allocasuarina* and *Eucalyptus* species, *Corymbia calophylla* and a range of introduced species (Valentine and Stock, 2008). The application area comprises *Corymbia calophylla*, *Eucalyptus rudis* and *Eucalyptus wandoo* woodland and it is considered that the entirety of the application area comprises suitable foraging habitat for black cockatoos. Noting that the application area occurs within a highly cleared landscape, whereby there is only five per cent native vegetation within the local area, the application area is considered to be significant as foraging habitat for black cockatoos.

In relation to black cockatoo breeding habitat values, a total of 660 habitat trees (trees with a diameter at breast height of 500 millimetres or greater, or 300 millimetres or greater for wandoo) were recorded within the larger survey area (Rathbone, 2017). Of these, 15 trees with hollows were identified within the original application area (Rathbone, 2017). The applicant has amended the application area to avoid all suitable breeding habitat trees for black cockatoos.

The western rosella forages within open forest woodlands and agricultural areas, and as such the application area is considered to provide suitable habitat for this species (Rathbone, 2017). Of the abovementioned 15 trees with hollows recorded in the original application area, 11 of these had hollows of a suitable size to provide breeding habitat for western rosella. The applicant has amended the application area to avoid all suitable breeding habitat trees for western rosella (inland) reducing the significance of the habitat now within the application area.

Given that the application area includes 5.5 hectares of significant habitat for black cockatoos, the proposed clearing is at variance to this Principle.

Taking into account the applicant's avoidance and minimisation measures, it is considered that a suitable offset will counterbalance the loss of 5.5 hectares of habitat for Carnaby's cockatoo. Section 6 provides further information on the adequacy of the offset provided.

**(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.**

**Comments**

**Proposed clearing is not likely to be at variance to this principle**

No rare flora species were recorded during a flora and fauna survey of the application area commissioned by the applicant (Rathbone, 2017), and no significant impacts to rare flora species are expected from the proposed clearing.

Given the above, the proposed clearing is not likely to be at variance to this 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.**

**Comments**

**Proposed clearing is at variance to this principle**

Three occurrences (totalling 0.035 hectares) of the Eucalypt Woodlands of the Western Australian Wheatbelt TEC, which is listed as Critically Endangered at a federal level under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*, were recorded within the application area (Rathbone, 2017). In WA, this TEC is listed as a Priority 3 priority ecological community (PEC) by the Department of Biodiversity, Conservation and Attractions (DBCA). These occurrences are part of larger TEC remnants that encroach on the application area, and were recorded within the southern, central-north, and northern portions of the application area.

The Eucalypt Woodlands of the Western Australian Wheatbelt TEC has undergone a decline in extent of about 85 per cent. It is estimated that about 76,000 hectares or eight per cent of the total current extent of the TEC is protected to some extent within formal conservation tenure.

While further clearing of this TEC is considered to pose a threat to its conservation status, the application area is limited to three small portions of larger remnants that comprise this TEC, including the following:

- 0.018 hectares over a linear distance of 400 metres;
- 0.012 hectares over a linear distance of 130 metres; and
- 0.005 hectares over a linear distance of approximately 35 metres

Therefore, the proposed clearing is not likely to significantly impact on the local extent of this ecological community, particularly considering that the extent of this TEC within a 50 kilometre radius of the application area is approximately 42,681 hectares.

No other TECs were recorded in the application area (Rathbone, 2017) and no significant impacts to any other TECs are expected from the proposed clearing.

Given the above, the proposed clearing is at variance to this principle, however the proposed clearing is not likely to significantly impact on the local extent of the Eucalypt Woodlands of the Western Australian Wheatbelt ecological community.

**(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.**

**Comments**

**Proposed clearing is at variance to this principle**

The National Objectives and Targets for Biodiversity Conservation 2001-2005 include a target to have clearing controls in place that prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750 (i.e. pre-European settlement) (Commonwealth of Australia, 2001). This is the threshold level, below which species loss appears to accelerate exponentially.

As indicated in Table 1, Beard vegetation association (BVA) 4, which is mapped over the majority of the application area, retains less than 30 per cent of its pre-European extent.

The local area retains approximately five per cent native vegetation cover (approximately 2,600 hectares).

As outlined in the assessment under principles (a) and (b), the vegetation within the application area contains significant habitat for conservation significant fauna and a high level of biological diversity. Noting this, and that the abovementioned mapped BVA and local area retain less than 30 per cent of their pre-European extents, the application area is considered to be a significant remnant within an extensively cleared area.

Given the above, the proposed clearing is at variance to this principle.

Taking into account the applicant's avoidance and minimisation measures, it is considered that a suitable offset will counterbalance the loss of 5.5 hectares of vegetation that comprises a significant remnant with an extensively cleared area. Section 6 provides further information on the adequacy of the offset provided.

Table 1 – Vegetation remaining statistics (Government of Western Australia, 2016).

	Pre-European extent (ha)	Current extent (ha)	Current extent (%)	% Current extent in all DBCA managed lands
<b>IBRA bioregion*:</b>				
Jarrah Forest	4,506,660	2,416,018	54%	69% (1,671,162 hectares)
<b>Local Government Authority*:</b>				
Shire of Kojonup	293,098	64,747	22%	3% (2,027 hectares)
<b>Beard vegetation association in Jarrah Forest bioregion*:</b>				
4	1,022,713	286,299	28%	23% (65,898 hectares)
968	140,823	68,792	49%	51% (35,360 hectares)

**(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.**

**Comments**

**Proposed clearing is at variance to this principle**

According to available datasets, the application area does not intersect any mapped wetlands. The application area does however intersect four mapped minor non-perennial watercourses, which appear to be tributaries of the Balgarup River. Balgarup River forms part of the larger Blackwood River catchment.

The *Eucalyptus rudis* Woodland vegetation type recorded in the flora and fauna survey is described as occurring in broad drainage channels and being intersected by watercourses (Rathbone, 2017). It is considered that this vegetation type represents vegetation growing in or in association with an environment associated with watercourses.



A total of 1.92 hectares of the *Eucalyptus rudis* Woodland vegetation type occurs within the application area. The application area is narrow and linear in nature occurring across a distance of approximately 11 kilometres. As a result, the extent of clearing at each watercourse intersected by the application area is considered to be minimal relative to the entire length and current vegetated extent of each watercourse. Therefore impacts to watercourse values are not expected to be significant.

Given the above, the proposed clearing is at variance to this principle, however no significant impacts are expected.

**(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.**

**Comments Proposed clearing is not likely to be at variance to this principle**

The application area is linear, approximately 11 kilometres in length with an average width of approximately 20 to 25 metres.

Given the linear and narrow nature of the application area, the risk of appreciable land degradation as a result of the proposed clearing is substantially reduced. Therefore, it is considered unlikely that any significant erosion would occur as a result of clearing a similar, although wider, corridor to that of the existing Albany Highway.

The application area occurs within the upper portion of the Blackwood River catchment. The Blackwood River catchment is approximately 2,300,000 hectares in size. It is considered that the clearing of 5.5 hectares over a linear distance of approximately 11 kilometres is unlikely to be of a scale that would result in a significant change to groundwater levels or any subsequent appreciable land degradation through salinity.

Given the above, the proposed clearing is not likely to be at variance to this 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.**

**Comments Proposed clearing is not likely to be at variance to this principle**

The closest conservation area to the application area is an un-named Nature Reserve (Crown Reserve 26158) located approximately 3.5 kilometres northwest of the application area. Based on a review of aerial imagery, the application area is not likely to form part of a significant ecological linkage with this or any other conservation area in the local area.

The proposed clearing is not likely to result in significant impacts to any adjacent or nearby conservation areas given the distances involved and absence of any likely significant ecological linkages.

Given the above, the proposed clearing is not likely to be at variance to this principle.

**(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.**

**Comments Proposed clearing is not likely to be at variance to this principle**

As outlined in the assessment under principle (f), the application area intersects four mapped minor non-perennial watercourses. The proposed clearing is limited to relatively narrow watercourse crossings with these crossings maintained by the applicant to prevent erosion of the road infrastructure.

Therefore the proposed clearing is considered unlikely to result in significant changes to the hydrology of the watercourses or their water quality.

As outlined in the assessment under principle (g), the application area occurs within the upper portion of the Blackwood River catchment. The Blackwood River catchment is approximately 2,300,000 hectares in size. It is considered that the clearing of 5.5 hectares over a linear distance of approximately 11 kilometres is unlikely to be of a scale that would result in a significant change to groundwater levels, or any subsequent deterioration in groundwater quality.

The proposed clearing is not likely to be at variance to this principle.

**(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.**

**Comments Proposed clearing is not likely to be at variance to this principle**

As discussed under Principles (g) and (i), the application area occurs within the upper portion of the Blackwood River catchment. The Blackwood River catchment is approximately 2,300,000 hectares in size. Noting the linear nature of the application area across a distance of approximately 11 kilometres, it is considered that the proposed clearing is unlikely to be of a scale that would cause, or exacerbate, the incidence or intensity of flooding.

The proposed clearing is not likely to be at variance to this principle.

## Planning instruments and other relevant matters.

**Comments** The applicant has advised that project area is located on Albany Highway south of Kojonup, from SLK 254.9 to 259.8 and SLK 260 to 266 in the Shire of Kojonup. The applicant has advised that the proposed works will consist of vegetation clearing either side of the current carriageway to allow for shoulder widening and sealing works, with culvert extensions to be undertaken as required (Main Roads Western Australia, 2017).

The applicant provided information on the scope and purpose of the project and advised that "Ten accidents have occurred on this stretch of road from SLK 255.21 to SLK 266 from 2012 to 2016. Five were classified as major accidents, and a further two required medical attention or hospitalisation. Widening is required to improve the safety features of this road and meet the Austroads safety guidelines. The shoulder widths of this section of road are only 0.3 to 0.6 m which does not allow for driver recovery. According to the Road Safety Management Guideline, increasing the sealed shoulder from 0.5 m to 2 m will reduce Killed and Seriously Injured (KSI) numbers by 64%" (Main Roads Western Australia, 2017).

The application was received on 28 November 2017, and was advertised on the Department of Water and Environmental Regulation's website for a 21 day public comment period closing 12 January 2018. No public submissions were received.

The application was determined to be a controlled action under the Commonwealth EPBC Act on 28 July 2017 (EPBC 2017/7934) due to the potential for significant impacts to Carnaby's cockatoo, Baudin's cockatoo, forest red-tailed black cockatoo and the Eucalypt Woodlands of the Western Australian Wheatbelt TEC.

## 5. Applicant's Submissions

On 8 February 2018 the applicant was formally notified by DWER (via letter and attached preliminary assessment report) of the environmental issues associated with the proposed clearing of 8.03 hectares of native vegetation.

On 13 March 2018 the applicant emailed DWER in response to the letter of 8 February 2018 and provided the following:

- Offset Proposal with amended project scope (including a request to amend the application area to 5.5 hectares)
- Amended native vegetation shapefiles to reflect the revised application area and reduction in impact to a TEC; and
- Assessment Report and Vegetation Management Plan for the original project scope.

The proposed offset was subsequently reviewed by DWER and determined as being adequate to offset the residual impacts associated with the proposed clearing (see section 6 below).

## 6. Suitability of Proposed offset

**Comments** Principle 1 of the *WA Environmental Offsets Policy September 2011* outlines that environmental offsets will only be considered after avoidance and mitigation options have been pursued. The *WA Environmental Offsets Guidelines August 2014* outlines a four step mitigation hierarchy; avoid, minimise, rehabilitate and offset. The avoidance and mitigation measures assessed within section 3 are deemed to be adequate in addressing this requirement.

The Delegated Officer determined that the proposed clearing will impact on 5.5 hectares of vegetation containing a high level of biological diversity, significant foraging habitat for black cockatoos, and on a significant vegetative remnant within an extensively cleared area.

To offset the abovementioned significant residual impacts the applicant proposed a monetary contribution for the acquisition of 39 hectares of remnant native vegetation for conservation within the Shire of Kojonup that provides environmental values commensurate with those being impacted by the proposed clearing. It is considered that sufficient remnant native vegetation remains available for acquisition within the Shire of Kojonup and conservation that contains high biological diversity and that is significant as a remnant in an extensively cleared area.

In assessing whether the proposed offset is adequately proportionate to the significance of the habitat values being impacted, DWER undertook a calculation using the Commonwealth Offsets Assessment Guide. The calculation indicated that the allocation of 39 hectares is considered adequate to counterbalance the significant residual impacts. This equates to a monetary contribution of \$174,330, determined based on the estimated value per hectare of a vegetated parcel of land in the Shire of Kojonup of 39 hectares.

Given the above, a monetary contribution of \$174,330 for the acquisition of 39 hectares of native vegetation for conservation is considered adequate to counterbalance the remaining significant residual impacts of the proposed clearing consistent with the *WA Environmental Offsets Policy September 2011*.

## 7. References

- Commonwealth of Australia (2001). National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Government of Western Australia (2016). 2016 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2016. WA Department of Parks and Wildlife, Perth.
- Keighery, B.J. (1994). Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Main Roads Western Australia (2017). Road Widening Kojonup South SLK 254.9 to SLK 266 – Assessment Report and Vegetation Management Plan. Revision FINAL, 12 October 2017. Main Roads Western Australia (DWER Ref: A1572527).

- Rathbone, D. (2017). Flora & Fauna Assessment – Albany Highway, South of Kojonup Townsite – 254.9-266 SLK – Main Roads Western Australia. Unpublished report prepared for Main Roads Western Australia. Revision Final, 23 March 2017 (DWER Ref: A1572511, A1592202, A1592204 & A1592205).
- Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
- Threatened Species Scientific Committee (2015). Approved Conservation Advice (including listing advice) for the Eucalypt Woodlands of the Western Australian Wheatbelt. Department of the Environment. Available from: <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/128-conservation-advice.pdf>. In effect under the EPBC Act from 04-Dec-2015.
- Valentine, L.E. and Stock, W. (2008) Food Resources of Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) in the Gngara Sustainability Strategy Study Area. Edith Cowan University and Department of Environment and Conservation. December 2008.