



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

### PERMIT DETAILS

Area Permit Number: 5495/2

File Number: 2013/000786-1

Duration of Permit: From 30 May 2015 to 19 November 2023

### PERMIT HOLDER

Bristle Holdings Ltd TA Austral Bricks (WA) Pty Ltd

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 1 on Diagram 34893, Morangup

### AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 11.54 hectares of native vegetation within the area cross-hatched yellow on attached Plan 5495/2.

### CONDITIONS

#### 1. Dieback and weed control

When undertaking any clearing or other activity 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 area to be cleared;
- (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.

#### 2. Fauna management

No clearing is to take place between 1 July to 31 February, being the breeding season of *Calyptorhynchus latirostris* (Carnaby's cockatoo), unless otherwise approved by the CEO.

#### 3. Offset – conservation covenant

Prior to undertaking any clearing authorised under this Permit, the Permit Holder shall:

- (a) give a conservation covenant under section 30B of the *Soil and Land Conservation Act 1945* setting aside the *covenant area* for the protection and management of vegetation in perpetuity; and
- (b) provide to the CEO a copy of the executed conservation covenant.

#### 4. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
  - (i) the species composition, structure and density of the cleared area;
  - (ii) 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;
  - (iii) the date that the area was cleared; and
  - (iv) the size of the area cleared (in hectares).

## 5. 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 4 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 was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June of each year.
- (c) Prior to 28 February 2030, the Permit Holder must provide to the CEO a written report of records required under condition 4 of this Permit where these records have not already been provided under condition 5(a) of this Permit.

## DEFINITIONS

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

*covenant area* means the area of land cross-hatched red on attached Plan 5495/2;

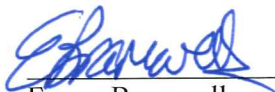
*dieback* means the effect of *Phytophthora* species on native vegetation;

*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;

*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 Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.

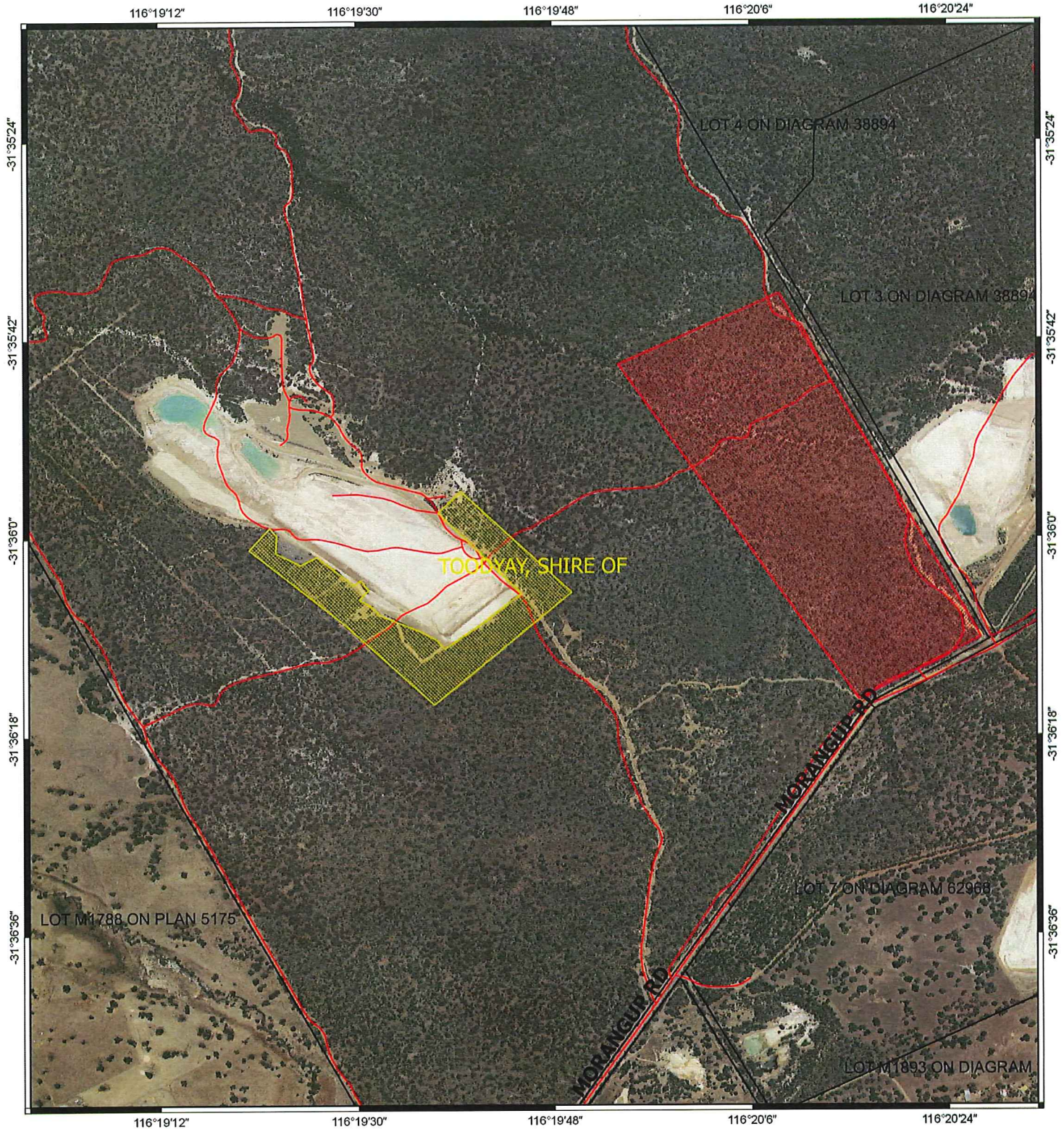


Emma Bramwell  
A/ MANAGER  
CLEARING REGULATION






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

1 September 2017

# Plan 5495/2



## Legend

-  Subject to conditions
  -  Areas approved to clear
  -  Roads
  -  LGA
  -  Cadastre
- Virtual Mosaic (LGATE-V001)



1:10,000

MGA 94

Geocentric Datum of Australia 1994

*E Bramwell*  
E Bramwell

Date *01/09/17*

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.: CPS 5495/2  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Bristle Holdings Pty Ltd T/As Austral Bricks WA Pty Ltd

### 1.3. Property details

Property: LOT 1 ON DIAGRAM 34893 (MORANGUP 6083)  
Local Government Area: Shire of Toodyay

### 1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|--------------------|-----------|--------------------|---------------------|
| 35.83              | -         | Mechanical Removal | Extractive industry |

### 1.5. Decision on application

Decision on Application: Final Amendment

Decision Date: 1 September 2017

Reasons for Decision: The application to amend Clearing Permit CPS 5495/1 was received on 5 July 2016. The applicant requested an increase in the size of the clearing area by 24.3 hectares (35.83 hectares in total) and an extension to the duration to 2069 to account for Stages 2, 3 and 4 of the project, changes to condition 5a and 5b relating to revegetation and rehabilitation, and changes to the definitions to include a definition for 'vegetative material' which excludes commercially-viable sawlogs and to align the definition of 'covenant area' with approval under the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* for all four stages of the project.

The amendment application has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986 (EP Act)*, and it has been concluded that the proposed clearing is at variance to Principles (a) and (b), may be at variance to Principle (h) and is not likely to be at variance to the remaining Principles.

The Delegated Officer determined that the proposed increased clearing will impact on:

- breeding habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*), including 708 habitat trees, of which approximately 100 contain hollows suitable for breeding and the remainder have the potential to develop hollows suitable for breeding;
- 35.83 hectares of feeding habitat for Carnaby's cockatoo, Baudin's cockatoo (*Calyptorhynchus baudinii*) and forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*);
- significant habitat for indigenous fauna species including chuditch (*Dasyurus geoffroi*), shield-backed trapdoor spider (*Idiosoma nigrum*) and western brush wallaby (*Macropus irma*); and
- an area of high biodiversity.

In relation to planning and other matters, the Delegated Officer noted that the Shire of Toodyay (Shire) has granted planning approval for all four stages of the project and an extractive industry licence (EIL) for Stage 1 of the project which includes post-extraction rehabilitation requirements, and that the Shire advised that amendments to the EIL for Stages 2, 3 and 4 will be considered progressively over the life of the project.

Given the above, the Delegated Officer determined that:

- the requested increase in the size of the clearing area and extension to the duration of the permit to account for Stages 2, 3 and 4 of the project are not supported, as:
  - these may lead to the clearing of an area that is not utilised (or immediately utilised) for the purpose for which it was cleared;
  - there is uncertainty around the environmental impacts at the time of clearing in 40-50 years and the subsequent offset requirement; and
  - an EIL has not been obtained for this area or duration;
- the requested changes to condition 5a and 5b and addition of a definition for 'vegetative material' are supported and have been deleted from the permit, noting that the EIL for Stage 1 of the project contains post-extraction rehabilitation requirements in respect to Stage 1;
- the requested change to the definition of 'covenant area' is not supported, given the permit does not apply for Stages 2, 3 and 4 of the project; and
- amendment to the shape of the clearing area to align the Stage 1 extraction area with the edge of the existing quarry is supported.

## 2. Existing Environment and information

### 2.1.1. Description of the native vegetation under application

#### Vegetation Description

The application area is mapped as Beard vegetation association 3003, which is described as medium forest; *Eucalyptus marginata* (jarrah) and *Corymbia calophylla* (marri) on laterite with *Eucalyptus wandoo* (wandoo) in valleys, sandy swamps with teatree and banksia (Shepherd et al., 2001). The application area is also mapped as Mattiske vegetation complex Y5, which is described as a mixture of open forest of *Eucalyptus marginata* subsp. *thalassica* - marri and woodland of wandoo on lateritic uplands in semiarid to perarid zones (Mattiske and Havel, 1998).

A flora and vegetation survey undertaken by Del Botanics in October 2012 and November 2013 recorded the vegetation within the application area as (Del Botanics, 2012; 2013a):

- Open Forest of marri and jarrah, over shrubland of *Banksia armata* (prickly dryandra) and *Allocasuarina humilis* (dwarf sheoak) over Herbland of *Hibbertia hypericoides* (yellow buttercups), *Gompholobium marginatum* and *Banksia nivea* (honeypot dryandra).
- Woodland of wandoo over shrubland of *Banksia sessilis* (parrot bush) and *Leptospermum erubescens* (roadside teatree), over herbland of honeypot dryandra, yellow buttercups over open grassland of *Neurachne alopecuroidea* (foxtail mulga grass).

#### Clearing Description

The application is to amend Clearing Permit CPS 5495/1 to increase the size of the clearing area by 24.3 hectares to 35.83 hectares of native vegetation for the purpose of clay extraction and to extend the duration to 2069 to account for Stages 2, 3 and 4 of the project, and to change condition 5a and 5b relating to the timing of revegetation and rehabilitation.

#### Vegetation Condition

Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994); to Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994).

#### Comment

The condition and description of the vegetation has been determined from a site inspection conducted by officers of the former Department of Environment Regulation (DER) on 5 September 2016 (DER, 2016), and flora and vegetation surveys undertaken by Del Botanics in October 2012 and November 2013 (Del Botanics, 2012; 2013a).

## 3. 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 application is to amend Clearing Permit CPS 5495/1 to (among other things) increase the size of the clearing area by 24.3 hectares to 35.83 hectares of native vegetation for the purpose of clay extraction. Approximately 30 hectares has been cleared at an existing clay extraction site adjacent to the application area.

The vegetation within the application area is in very good to excellent (Keighery, 1994) condition and consists of two vegetation communities (Del Botanics, 2013a):

- Open Forest of marri and jarrah, over shrubland of prickly dryandra and dwarf sheoak over Herbland of yellow buttercups, *Gompholobium marginatum* and honeypot dryandra; and
- Woodland of wandoo over shrubland of parrot bush and roadside teatree, over herbland of honeypot dryandra, yellow buttercups over open grassland of foxtail mulga grass.

The application area occurs within the Jarrah Forest Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. The boundary between this bioregion and the Avon Wheatbelt IBRA bioregion occurs five kilometres to the east. The application area is within the transitional zone between the two bioregions, at the eastern edge of the jarrah forest communities, the western edge of wandoo woodland communities and contains flora species representative of both bioregions.

The local area considered in the assessment of this application is defined as a 10 kilometre radius measured from the perimeter of the application area.

The vegetation within the application area is part of a larger remnant (approximately 900 hectares) of native vegetation which is likely to act as an ecological stepping stone between conservation areas and other remnants of native vegetation in the local area (Western Wildlife, 2012). The 900 hectare remnant forms part of a semi-continuous band of native vegetation linking the Avon Valley National Park and timber reserves to the west with Nature Reserves to the south east (Western Wildlife, 2012). The application area is connected to the Avon Valley National Park by contiguous vegetation (refer to Figure 1).

Molloy et al. found that "while gaps in vegetation will, to some degree, compromise the capacity of flora and fauna species to persist, where the cleared gap between patches is less than 100 metres those impacts will be limited in that such a gap does not bring about a significant barrier to the dispersal of many fauna species, seed and other genetic material", and that the greater the remnant size, the greater its capacity to maintain a larger more viable suite of species (Molloy, 2009). Given this, the application area is likely to be ecologically synonymous with the larger remnant, and together with the adjoining vegetation, is likely to contain a high level of biological diversity within the local area.

Flora and vegetation surveys undertaken by Del Botanics in October 2012, October 2013 and November 2013 did not record any conservation significant flora within the application area (Del Botanics, 2012; 2013a; 2013b). Noting the vegetation types present, the vegetation within the application area is not likely to be representative of any threatened or priority ecological communities that have been recorded within the local area.

As assessed under principle (b), the application area contains significant habitat for three conservation significant species of black cockatoos and the chuditch. It also contains suitable habitat for the shield-backed trapdoor spider and western brush wallaby (identified during a fauna assessment undertaken by Western Wildlife in 2012).

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

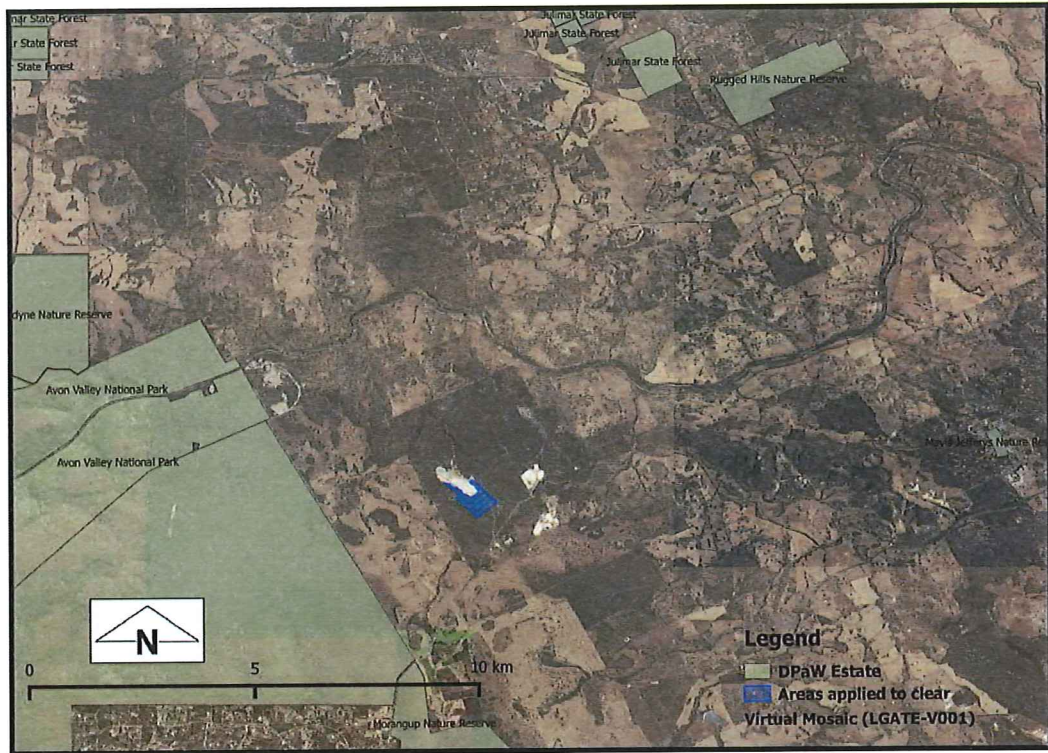


Figure 1: Location of application area

**Methodology**

**References**

- Del Botanics (2012)
- Del Botanics (2013a)
- Del Botanics (2013b)
- Keighery (1994)
- Molloy et al. (2009)
- Western Wildlife (2012)

**GIS Databases**

- SAC Bio Datasets - accessed June 2017
- Pre-European Vegetation

**(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**

As discussed under Principle (a), the vegetation within the application area is part of a larger remnant that is likely to be ecologically connected to conservation reserves in the local area (10 kilometre radius) and is likely to contain discreet fauna populations. The proposed clearing is considered unlikely to result in isolated vegetation patches or significantly reduce the width of local linkages, however it will reduce the remnant's size by approximately four per cent, reducing its long term viability and ability to act as an ecological stepping stone (Western Wildlife, 2012).

Six fauna species listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950 (WC Act)* have been recorded in the local area (DBCA, 2007-). Carnaby's cockatoo, Baudin's cockatoo, forest red-tailed black cockatoo, chuditch, shield-backed trapdoor spider and black-flanked rock-wallaby (*Petrogale lateralis* subsp. *lateralis*). As rocky habitat suitable for the black-flanked rock-wallaby is not present within the application area and records from the local area are from re-introductions into conservation estate (DBCA, 2007-), the species is not likely to be impacted by the proposed clearing.

Carnaby's cockatoo is listed as endangered and Baudin's cockatoo and forest red-tailed cockatoo are listed as vulnerable under the EPBC Act and WC Act. Black Cockatoos breed in large hollow-bearing trees, generally within woodlands or forests or in isolated trees (Commonwealth of Australia, 2012). These species nest in hollows in live or dead trees of *Eucalyptus* and *Corymbia* species (Commonwealth of Australia, 2012). The vegetation within the application area occurs within a confirmed breeding area and unconfirmed feeding area for these species.

The fauna survey of the application area identified 708 habitat trees approximately 100 of which contain large hollows suitable to be used for breeding by local and threatened fauna (Western Wildlife, 2012). The remainder of the habitat trees have the potential to develop hollows and become suitable breeding habitat for a range of fauna species, in particular Carnaby's cockatoo.

Black cockatoos have a preference for foraging habitat that includes jarrah and marri woodlands and forest heathland and woodland dominated by proteaceous plant species such as *Banksia* sp., *Hakea* sp. and *Grevillea* sp. (Commonwealth of Australia, 2012). The fauna survey recorded marri, jarrah and banksia woodland within the application area which may provide significant resources for these species (Western Wildlife, 2012).

The chuditch is listed as vulnerable under the EPBC Act and WC Act. Chuditch travel large distances and have a large home range. Given this, the retention of vegetation corridors is noted as an important requirement of the species (Parks and Wildlife, 2012). The habitat preferences of this species are present within the application area as well as surrounding vegetation, (Menkhorst and Knight, 2004) given this and the linkage value of the application area, the vegetation under application may contain suitable habitat for the species.

The shield-backed trapdoor spider is listed as 'vulnerable' under the WC Act. This species is distributed throughout the mid-west of Western Australia in Acacia and Eucalypt woodlands on heavy soils. Given this, the application area may provide suitable habitat for this species (Western Wildlife, 2012).

The western brush wallaby is listed as Priority 4 by Parks and Wildlife and was observed within the application area (Western Wildlife, 2012). The home range for this species is estimated to be between 5-10 hectares, therefore the application area is likely to provide significant habitat for a population of this species (Western Wildlife, 2012).

Given the very good to excellent (Keighery, 1994) condition of the vegetation within the application area, the presence of a significant number of hollow-bearing habitat trees, significant black cockatoo foraging habitat, presence of contiguous vegetation, location in close proximity to the Avon River and as it forms part of an ecological linkage, the application area consists of significant habitat for local and conservation significant fauna.

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

#### Methodology

##### References

- Commonwealth of Australia (2012)
- DEC (2012)
- Keighery (1994)
- Menkhorst and Knight (2004)
- Molloy et al. (2009)
- DBCA (2007-)
- Parks and Wildlife (2012)
- Western Wildlife (2012)

##### GIS Databases

- Carnaby's cockatoo breeding areas confirmed
- SAC Biodatsets - accessed June 2017

### **(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**

One rare flora species has been recorded within the local area (10 kilometre radius). The vegetation type and observed species composition are consistent with the habitat requirements of this species (DER, 2016).

A threatened flora survey of the application area did not identify any rare flora species (Del Botanics, 2013b). The survey was undertaken within the peak flowering and identification period of the abovementioned species.

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

#### Methodology

##### References

- DER (2016)
- Del Botanics (2013b)

**(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 not likely to be at variance to this Principle**

One threatened ecological community (TEC), 'Eucalypt woodlands of the Western Australian Wheatbelt', has been mapped within the local area (10 kilometre radius). This TEC was listed as 'critically endangered' under the EPBC Act on 4 December 2015, after the assessment for Clearing Permit CPS 5495/1 was completed. The application area is located on the western edge of the Wheatbelt, in close proximity to the Darling Scarp where the mean annual rainfall is 200 millimetres above that specified in the EPBC Act Conservation Advice.

The former Department of Parks and Wildlife advised that although the application area meets some of the key diagnostic features of this TEC, it does not meet all the required diagnostic features (Parks and Wildlife, 2016).

A flora and vegetation survey of the application area conducted by Del Botanics did not identify vegetation consistent with a TEC (Del Botanics 2013a).

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

**Methodology** References:  
Del Botanics (2013a)  
Parks and Wildlife (2016)

GIS Databases:  
SAC Biodatasets - accessed June 2017

**(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 not likely to be at variance to this Principle**

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

As indicated in Table 1, the remaining extents of native vegetation within the Jarrah Forest bioregion, local government authority, local area (10 kilometre radius) and for each of the vegetation types are above the minimum 30 per cent representation threshold. The remaining extent of native vegetation within the Avon Wheatbelt bioregion is below the minimum 30 per cent representation threshold; the proposed clearing represents approximately 0.002 per cent of the current extent and is unlikely to significantly impact on this.

As assessed under Principles (a) and (b), the application area is a significant remnant as it contains high biodiversity, significant fauna habitat and linkage values however, given the amount of vegetation within the local area, it is not likely to be considered within an area that has been extensively cleared.

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

**Table 1: Vegetation statistics**

|   | Pre-European (ha) | Current Extent (ha) | Remaining (%) | Extent in Parks and Wildlife Managed Lands (%) |
|---|-------------------|---------------------|---------------|--|
| <b>IBRA Bioregion*</b>                            |                   |                     |               |  |
| Jarrah Forest                                     | 4,506,660         | 2,422,783           | 54            | 69   |
| Avon Wheatbelt                                    | 9,517,110         | 1,763,063           | 19            | 10   |
| <b>Local Government Authority*</b>                |                   |                     |               |  |
| Shire of Toodyay                                  | 169,176           | 85,347              | 50            | 26   |
| <b>Beard Vegetation Association in Bioregion*</b> |                   |                     |               |  |
| 3003  | 66,452            | 39,081              | 59            | 46   |
| <b>Mattiske Vegetation Complex**</b>              |                   |                     |               |  |
| Y5  | 126,610           | 84,032              | 66            | 40   |
| Ck  | 164,283           | 64,689              | 39            | 20   |
| <b>Local Area</b>                                 |                   |                     |               |  |
| 10 kilometre radius                               | 34,785            | 18,291              | 53            | n/a  |

**Methodology** References  
- Commonwealth of Australia (2001)  
- \*Government of Western Australia (2016)  
- \*\*Parks and Wildlife (2015)



- GIS Datasets  
 - Mattiske vegetation  
 - Pre-European vegetation  
 - NWLRA, Vegetation Extent

**(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 not likely to be at variance to this Principle**

No watercourses or wetlands are mapped within the application area. The closest major watercourse occurs approximately four kilometres to the north while three minor non-perennial watercourses occur within approximately 200 metres.

Flora and vegetation surveys and a site inspection did not record vegetation growing in association with a watercourse or wetland within the application area (Del Botanics, 2012; 2013a; DER, 2016).

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

- Methodology** References  
 - DER (2016)  
 - Del Botanics (2013)
- GIS Databases  
 - Hydrography linear

**(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 has been mapped within the following land sub-systems (Schoknecht et al., 2004):

- Leaver Subsystem: Gravelly slopes and ridges of the western Darling Plateau. Gravelly yellow and red duplexes, gravelly deep clayey sands and sandy loams over laterite and clay. Marri, *Banksia* spp., *Adenanthos* spp. with wandoo and jarrah on clay.
- Yalanbee Subsystem: Residual plateau at the top of the landscape shallowly dissected by Pindalup valleys. Pisolitic gravelly, yellowish brown soils that vary in texture from loamy sands to clays, with pockets of pale sands and areas of outcropping laterite.

The application area ranges from 250-270 metres above sea level and receives an annual average rainfall of 700 millimetres. Salinity within the application area is moderate, recorded as 3,000-7,000 milligrams per litre total dissolved solids. The vegetation within the application area is part of a larger remnant (approximately 900 hectares) of native vegetation. The local area (10 kilometre radius) is not extensively cleared.

The cleared area has been mapped within the land degradation risk categories outlined in table 2 below.

**Table 2: Land Degradation Risk Categories (Schoknecht et al., 2004)**

| Risk categories          | Leaver Subsystem   | Yalanbee Subsystem  |
|--------------------------|--|---|
| Wind erosion             | 10-30% of map unit   | 10-30% of map unit  |
| Water erosion            | 10-30% of map unit   | 10-30% of map unit  |
| Salinity                 | 30-50% of map unit   | 30-50% of map unit  |
| Subsurface Acidification | 3-10% of map   | 3-10% of map  |
| Flood risk               | <3% of the map unit  | <3% of the map unit   |
| Water logging            | <3% of map unit  | <3% of map unit   |
| Phosphorus export risk   | <3% of map unit has a high to extreme phosphorus export risk | 30-50% of map unit has a high to extreme phosphorus export risk |

Noting the absence of watercourses within the application area, the extent of vegetation surrounding the application area and mapped land degradation risks, the proposed clearing is not likely to cause appreciable land degradation.

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

- Methodology** References  
 - Belton (2001)  
 - Schoknecht et al. (2004)
- GIS Databases  
 - Groundwater Salinity, statewide  
 - Rainfall, Mean Annual  
 - Topographic Contours, Statewide

**(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 may be at variance to this Principle**

According to available databases, a number of conservation areas occur within the local area (10 kilometre radius). The nearest conservation areas are a *Soil and Land Conservation Act 1945* heritage site, an un-named timber reserve, Morangup Nature Reserve and Avon Valley National Park, located approximately 1.4 kilometres, three kilometres, 3.8 kilometres and 4.7 kilometres from the application area respectively. Noting the separation distances to these areas, the proposed clearing is not likely to impact on the environmental values of these conservation areas.

As discussed under Principle (a), the vegetation within the application area is part of a larger remnant that is likely to be ecologically connected to conservation reserves in the local area and is likely to contain discreet fauna populations. The proposed clearing is considered unlikely to result in isolated vegetation patches or significantly reduce the width of local linkages. However, it will reduce the remnant by approximately four per cent, reducing its long term viability and ability to act as an ecological stepping stone (Western Wildlife, 2012).

Given the value of the application area as part of an ecological linkage, the proposed clearing may be at variance to this Principle.

**Methodology** References  
- Molloy et al. (2009)  
- Western Wildlife (2012)

GIS Databases  
- Parks and Wildlife tenure

**(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**

The applicant prepared an Excavation and Rehabilitation Management Plan (Belton, 2001) in order to manage surface water across the site. The management plan states that siltation ponds are used to capture any run-off and the current settlement pond is connected to the nearby stream line by a pipe under the access ramp. The pipe is inverted approximately five metres from the bottom of the pit, thus preventing siltage and export of clay particles into the local stream system.

The application area slopes downwards towards the existing pit and any run-off is directed into and contained within the existing pit. During the summer operation period, the water from the settlement pond is used for dust suppression. Erosion of the final batters is controlled by the progressive replacement of the overburden and topsoil. Topsoil and overburden are stockpiled for later rehabilitation (Belton, 2001). The surrounding 900 hectare vegetation remnant acts as a buffer and prevents erosion from occurring beyond the excavation pit.

Noting the absence of watercourses within the application area, the low risk of land degradation, the extent of vegetation surrounding the application area, and management actions proposed, the proposed clearing is not likely to cause deterioration in the quality of surface or underground water.

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

**Methodology** References  
- Belton (2001)

GIS Databases  
- Hydrography, linear

**(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**

The application area is approximately 265 metres above sea level on sloping topography and receives an average rainfall of 700 millimetres per year. No watercourses or wetlands are present within the application area. Less than three per cent of the mapped land sub-systems have been mapped with a moderate to high flood risk (Schoknecht et al., 2004).

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

**Methodology** References  
- Schoknecht et al. (2004)

GIS Databases  
- Rainfall, Mean Annual  
- Topographic Contours, Statewide

## Planning instrument or other matters

**Comments** The application area is located within an extraction area as defined in the West Australian Planning Commissions Statement of Planning Policy no. 2.4, Basic Raw Materials. Information provided with the application indicates that the proposed clearing is for the development of Stages 2, 3 and 4 of the extraction site and the area required for the next 40 to 50 years (refer to Figure 2).

There are no Aboriginal Sites of Significance within the application area.

The application was advertised in *The West Australian* newspaper on 22 August 2016 with a 21 day submission period. No public submissions have been received in relation to this application.

The Shire has granted planning approval for all four stages of the project (Shire of Toodyay, 2016). The applicant has been granted an EIL for Stage 1 of the project, corresponding with the area authorised to be cleared under Clearing Permit CPS 5495/1, however an EIL is yet to be obtained for Stages 2, 3 and 4 of the project (being the subject of this application). The Shire advised that it intends to consider amendments to the EIL progressively over the life of the pit (Shire of Toodyay, 2016).

Condition (k) of the Stage 1 EIL states:

The excavation site is to be rehabilitated in accordance with the approved Extractive Industry Licence and Clay Extraction Management Plan (Lot 1 Morangup Road) dated July 2013 for Lot 1 Morangup Road, Morangup Road and the Shire of Toodyay's Extractive Industry Local Law. The rehabilitation works must be completed within the first winter months following re-establishment of the final contour ground levels and maintained for a period of three years thereafter.

Condition (l) of the Stage 1 EIL requires the applicant to provide a cash bond of \$138,480 to the Shire prior to the commencement of operations as a performance guarantee against the satisfactory completion of the rehabilitation site.

In 2014 a proposed action to clear 35.83 hectares of vegetation was referred to the former Commonwealth Department of the Environment (**DotE**) due to impacts to black cockatoos. On 2 September 2014, DotE approved the proposed action subject to conditions including:

- a conservation covenant being applied over an identified portion of the property (130.3 hectares);
- the approval of an Environmental Management and Offset Strategy;
- the implementation of dieback management procedures; and
- no clearing within the breeding season between July-February (DotE, 2014).

On 30 April 2015 the applicant was granted Clearing Permit CPS 5495/1 to clear 11.54 hectares of native vegetation within stage one of the extraction site. Clearing Permit CPS 5495/1 granted subject to conditions including:

- no clearing to take place within the breeding season of Carnaby's cockatoo;
- provision of an offset requiring a conservation covenant under section 30B of the *Soil and Land Conservation Act 1945* to be placed over 42.14 hectares of adjoining vegetation; and
- revegetation and rehabilitation of the cleared areas prior to 19 November 2024.

A third party appeal was submitted to the Office of the Appeals Convenor, objecting to the grant of Clearing Permit CPS 5495/1 (C008 of 2015). On 26 August 2015, the then Minister for Environment dismissed the appeal noting:

DER advised that in the event that additional areas are subject to future applications to clear, an assessment of the impact of the clearing will be undertaken using contemporary environmental data available at that time, including assessment of cumulative impacts.

With regard to alternatives, the Minister noted the advice of the applicant that the existing pit is nearly exhausted and resource drilling campaigns at alternative sites in the local area have been investigated and determined to be unsuitable for brick making.

The Minister noted that DER worked with the applicant to avoid vegetation with the most significant environmental values. The permit requires an offset of 42 ha for the clearing of 11.54 ha of native vegetation in very good to excellent condition".

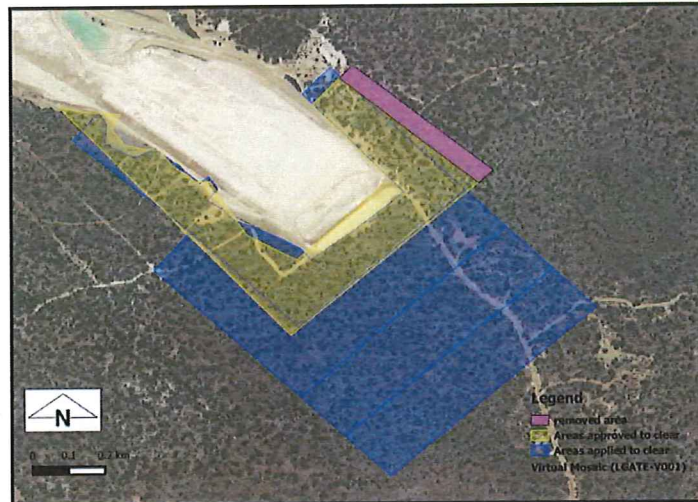


Figure 2: Clearing Permit CPS 5495/1 (yellow) and application CPS 5495/2 (blue)

#### Methodology

#### References

- DotE (2014)
- Land insights (2015)
- Land insights (2017)
- Shire of Toodyay (2016)

#### GIS Databases:

- Aboriginal Sites of Significance
- Town Planning Scheme Zones

## 4. Applicant's Submissions

#### Comments

On 6 February 2017, a DER Delegated Officer wrote to the applicant (DER ref: A1373022), outlining the significant environmental impacts identified during the preliminary assessment and inviting the applicant to provide advice addressing these issues and information on how the applicant intends to avoid or minimise the impacts and offset unavoidable impacts, within 30 days. The issues outlined in the letter included:

- The application area contains significant breeding habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*), including 708 habitat trees, of which approximately 100 contain large hollows suitable to be used for breeding and the remaining have the potential to develop hollows suitable for breeding.
- The application area contains significant feeding habitat for Carnaby's cockatoo, Baudin's cockatoo (*Calyptorhynchus baudinii*) and forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*).
- The application area forms significant habitat for further indigenous fauna species including chuditch (*Dasyurus geoffroii*), shield-backed trapdoor spider (*Idiosoma nigrum*) and western brush wallaby (*Macropus irma*).
- The application area is likely to contain a high level of biodiversity and forms part of a mapped ecological linkage facilitating the movement of flora and fauna across the landscape.

The DER Delegated Officer also noted the Minister for Environment's appeal decision in respect to the grant of clearing permit CPS 5495/1, that the WA Environmental Offsets Policy (2011) is relevant to the application, and that information on the avoidance and mitigation measures relevant to this application is required prior to an offset being considered.

On 20 March 2017 and 29 March 2017, the applicant provided advice in relation to the matters raised in DER's letter of 6 February 2017 (DER ref: A1404098). The applicant's response included the avoidance, minimisation, rectification and reduction measures outlined below:

- "Austral Bricks makes sure the area has valuable resources to avoid needlessly clearing".
- "The option of not expanding is not viable considering the value of this resource to the economy of the state".
- "The stages identified have previously been modified to reduce and minimise the impacts on large trees". This was prior to the submission of the first clearing permit application.
- "The site will be cleared in stages and vegetation will be removed only when necessary to facilitate extraction".
- "A rehabilitation management plan has been provided ... The rehabilitation management plan proposes that once the site is decommissioned that it will be recontoured and revegetated".
- "Clearing of habitat trees will be avoided if possible, particularly along the edge of the application area". This was demonstrated in the email of 29 March 2017, outlining an area of vegetation to be retained within the area approved to clear.
- "The quality of the extraction material in the new extraction area will be tested over time and if areas are found with poorer quality material which will not be excavated, these areas will not be cleared".
- "Clearing within the application area will only take place during non-breeding times for Carnaby's black cockatoo and forest red-tailed black cockatoo".

Supporting information with the applicant's response included Shire of Toodyay planning approval (7 October 2016), an Environmental Management and Offset Strategy (February 2015), a conservation covenant under the *Soil and Land Conservation Act 1945* for 130.5 hectares of Lot 1 on Diagram 34893 (1 August 2016), and an offsets calculation using the Commonwealth Offsets Assessment Guide.

Taking into account all of the information obtained in relation to this amendment application, it is considered that:

- the requested increase in the size of the clearing area and extension to the duration of the permit to account for Stages 2, 3 and 4 of the project are not supported, as:
  - these may lead to the clearing of an area that is not utilised (or immediately utilised) for the purpose for which it was cleared;
  - there is uncertainty around the environmental impacts at the time of clearing in 40-50 years and the subsequent offset requirement; and
  - an EIL has not been obtained for this area or duration;
- the requested changes to condition 5a and 5b and addition of a definition for 'vegetative material' are supported and have been deleted from the permit, noting that the EIL for Stage 1 of the project contains post-extraction rehabilitation requirements in respect to Stage 1;
- the requested change to the definition of 'covenant area' is not supported, given the permit does not apply for Stages 2, 3 and 4 of the project; and
- amendment to the shape of the clearing area to align the Stage 1 extraction area with the edge of the existing quarry is supported.

## 5. Suitability of Proposed Offset

### Comments

The Delegated Officer determined that the proposed clearing will impact on:

- breeding habitat for Carnaby's cockatoo, including 708 habitat trees, of which approximately 100 contain hollows suitable for breeding and the remainder have the potential to develop hollows suitable for breeding;
- 35.83 hectares of feeding habitat for Carnaby's cockatoo, Baudin's cockatoo and forest red-tailed black cockatoo;
- significant habitat for indigenous fauna species including chuditch, shield-backed trapdoor spider and western brush wallaby; and
- an area of high biodiversity.

To offset the impacts of the proposed clearing, the applicant has proposed an offset securing 130.3 hectares of adjoining vegetation from future potential development/degradation, specifically the offset area:

- will be placed under conservation covenant;
- is located within vegetation contiguous with the application area;
- contains significant black cockatoo feeding habitat;
- contains suitable Carnaby's cockatoo breeding habitat; and
- contains high biodiversity values.

It is considered that the requested increase in the size of the clearing area to account for Stages 2, 3 and 4 of the project is not supported, and as such an assessment of the suitability of the proposed offset has not been undertaken at this time.

## 6. References

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- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
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- Land Insights (2017) Advice received in relation to Clearing Permit application CPS 5495/2. Response to correspondence received 20 March 2017 and 29 March 2017 (DER ref: A1404097 and A1404098).
- 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.
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- 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.
- Shire of Toodyay (2016) Advice received in relation to clearing permit application CPS 5495/2. Received 8 November 2016. (DER ref: A1501958).
- Western Wildlife (2012) Level 1 Fauna Survey and Targeted Black Cockatoo and Chuditch Survey, prepared for Austral Bricks, October 2012 (DEC ref: A598619).