



## CLEARING PERMIT

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

### PERMIT DETAILS

Area Permit Number: 6018/1  
File Number: 2011/006900-1  
Duration of Permit: From 11 July 2015 to 11 July 2017

### PERMIT HOLDER

Shire of Victoria Plains

### ADVICE NOTE

The vegetated land described in condition 1 is intended to provide habitat for Trapdoor Spider (*Idiosoma nigrum*) and Carnaby's cockatoo (*Calyptorhynchus latirostris*).

### LAND ON WHICH CLEARING IS TO BE DONE

Wirrilda Road reserve (Pin 11395527) Glentromie  
Gillingarra-Glentromie Road reserve (Pin 11710781 and Pin 11395528) Glentromie

### AUTHORISED ACTIVITY

The Permit Holder shall not clear more than one hectare of native vegetation within the area hatched yellow on attached Plan 6018/1a.

### CONDITIONS

#### 1. Offsets – conservation covenant

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

- (a) give a conservation covenant for 4.8 hectares of vegetated land on Lot 352 on Deposited Plan 206043 as shown on attached Plan 6018/1b, under section 30B of the *Soil and Land Conservation Act 1945*, for the protection of native vegetation in perpetuity; and
- (b) provide to the CEO a copy of the executed conservation covenant, within 30 days of giving the covenant.

### 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 6018/1b.

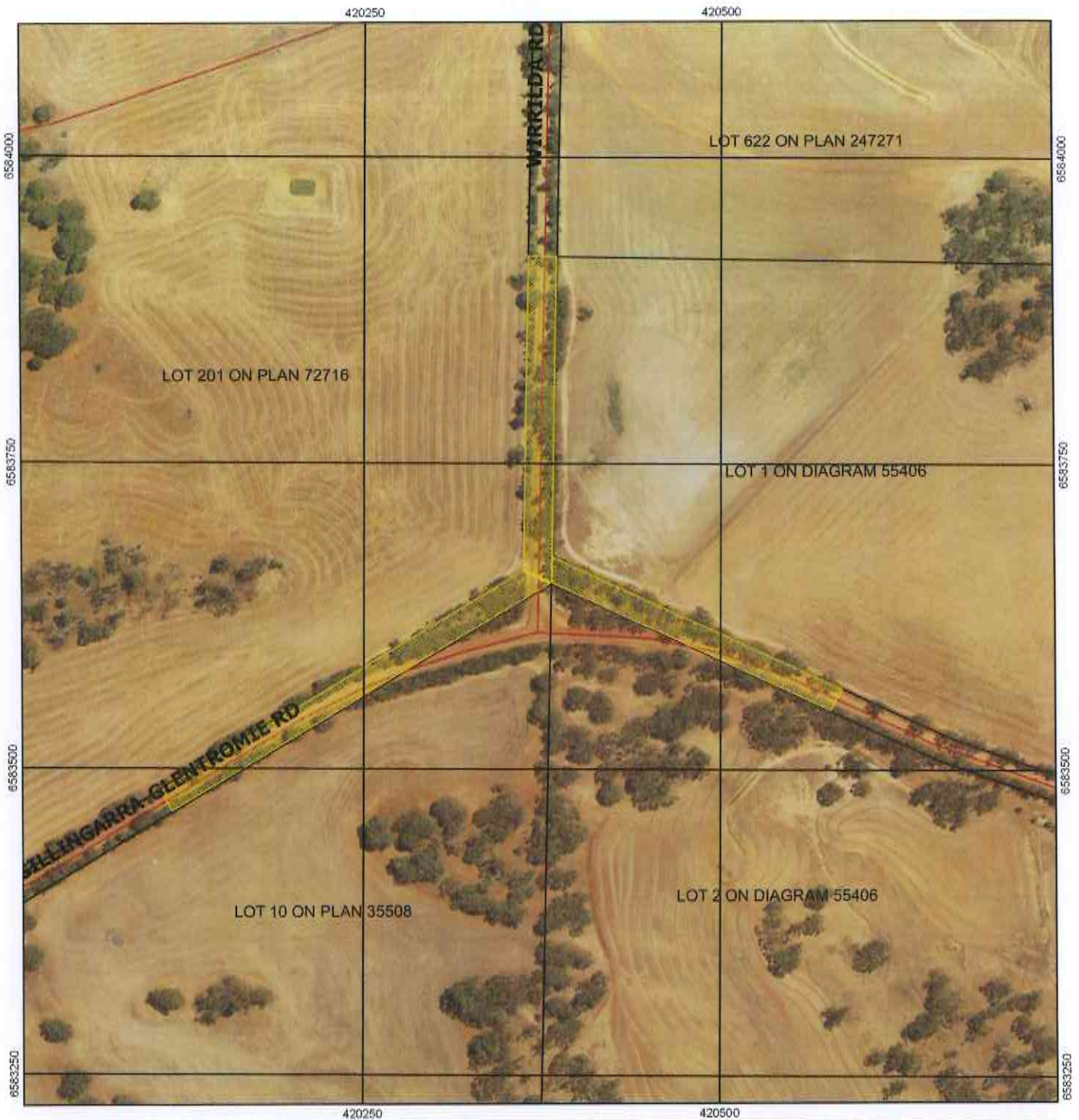
A handwritten signature in cursive script, appearing to read "M Warnock", written over a horizontal line.

M Warnock  
SENIOR MANAGER  
CLEARING REGULATION

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

11 June 2015

# Plan 6018/1a



## Legend

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



1:3,000

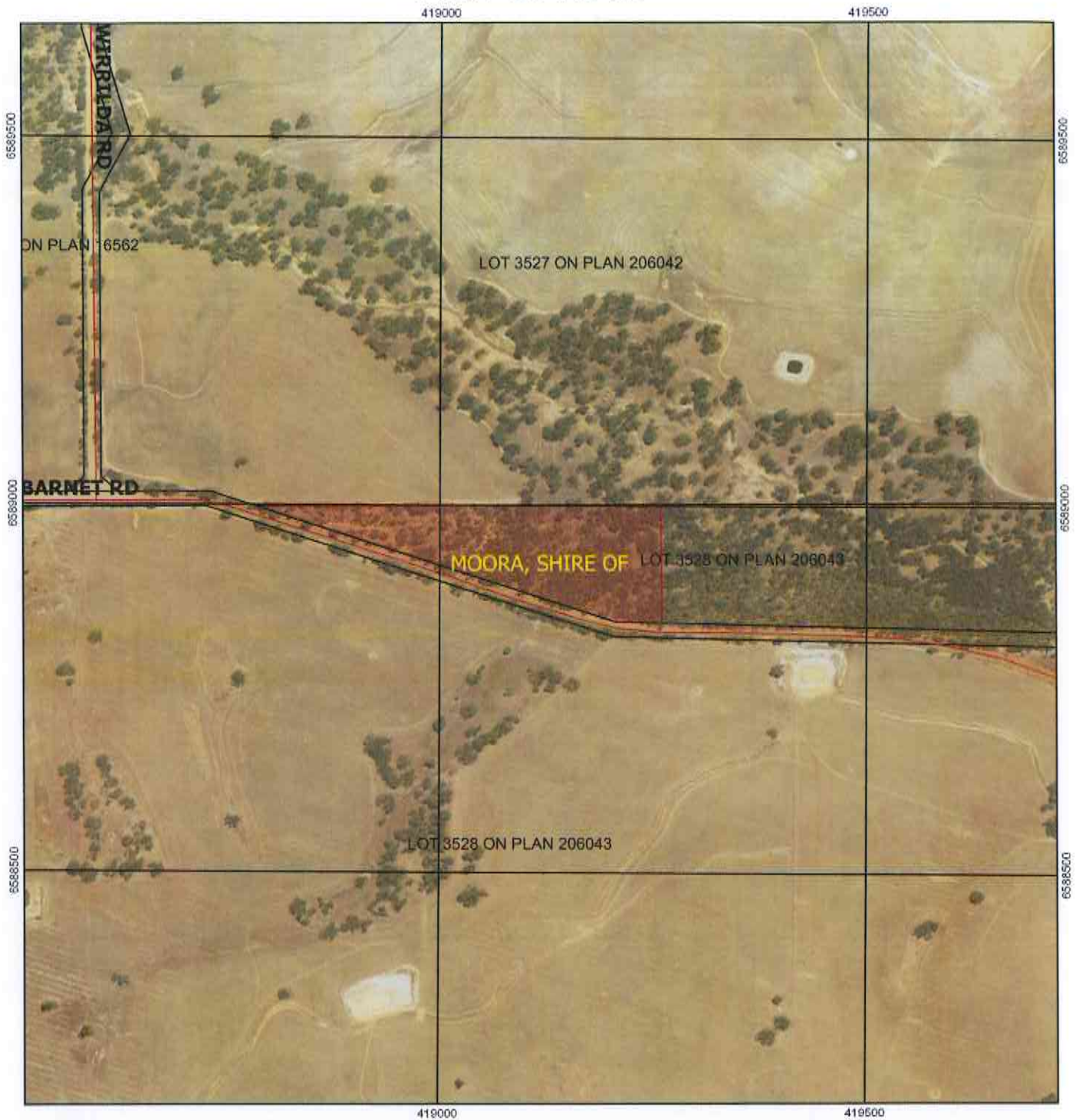
MGA 94  
Geocentric Datum of Australia 1994

*M Warnock* Date *11/6/15*  
M Warnock





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



# Plan 6018/1b



## Legend

-  Area to be placed under conservation covenant
  -  Roads
  -  LGA
  -  Cadastre
- Virtual Mosaic (LGATE-V001)



MGA 94  
Geocentric Datum of Australia 1994

*M Warnock* Date 11/6/15  
M Warnock

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





## 1. Application details

### 1.1. Permit application details

Permit application No.: 6018/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Shire of Victoria Plains

### 1.3. Property details

Property: ROAD RESERVE (GLENTROMIE 6509)  
Local Government Area: Shire of Victoria Plains

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
One	-	Mechanical Removal	Road construction or maintenance

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 11 June 2015

## 2. Site Information

### 2.1. Existing environment and information

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

Vegetation Description	Clearing Description	Vegetation Condition	Comment
The vegetation under application is mapped as Beard vegetation association 7 which is described as medium woodland, York gum ( <i>Eucalyptus loxophleba</i> ) and wandoo ( <i>Eucalyptus wandoo</i> ) (Shepherd et al, 2001).	The clearing of one hectare of native vegetation within Wirrilda Road reserve and Gillingarra-Glentromie Road reserve for the purpose of road realignment.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994).	The condition of the vegetation under application was determined via a site inspection of the application area undertaken by Department of Environment Regulation staff (DER, 2014).

## 3. Assessment of application against Clearing Principles

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

#### Comments Proposal may be at variance to this Principle

The application is to clear up to one hectare of native vegetation for the purpose of road realignment.

A site inspection of the application area undertaken by Department of Environment Regulation staff described the vegetation as Wandoo woodland with *Allocasuarina campestris* and a sparse understorey of *Acacia acuminata* with introduced grasses (DER, 2014).

The application area falls within Beard vegetation association 7 which retains 11 percent native vegetation within the Avon Wheatbelt IBRA bioregion (Government of Western Australia, 2013). The local area (10 kilometre radius) retains less than 10 percent native vegetation. Given this, the application falls within a highly cleared landscape.

Carnaby's cockatoo (*Calyptorhynchus latirostris*) is listed as endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and rare or likely to become exist under the *Wildlife Conservation Act 1950* (WC Act). The application area falls within confirmed Carnaby's cockatoo breeding areas, is considered potential feeding habitat and contains Eucalyptus species of a size and age as to contain potential breeding hollows (DER, 2014).

Shield-backed trapdoor spider (*Idiosoma nigrum*) is listed as vulnerable under the EPBC Act and rare or likely to become extinct under the WC Act. Shield-backed trapdoor spider has been recorded three times within 14 kilometres of the application area within the same vegetation association and soil type (Parks and Wildlife, 2014). Given this the species may be present within the application area. Threats to the species include road construction and maintenance as well as clearing native vegetation (Avon Catchment Council, 2007).

Given the degraded condition of the understorey vegetation the application area is not likely to contain conservation significant flora recorded from the local area or be representative of a threatened or priority ecological community.

Given the above, the application may be at variance to this Principle.

In order to address the potential impacts to biodiversity, the applicant has committed to an offset securing 4.8 hectares of Carnaby's cockatoo and shield back trapdoor spider habitat, within the vicinity of the application area, under a conservation covenant (section 30 of the *Soil and Land Conservation Act 1945*).

**Methodology**    **References:**  
Avon Catchment Council (2007)  
DER (2014)

**GIS Datasets:**  
- Sac Bio Datasets - accessed May 2015

**(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      Proposal is at variance to this Principle**

Carnaby's cockatoo (*Calyptorhynchus latirostris*) and Shield-backed Trapdoor Spider (*Idiosoma nigrum*) have been recorded within the local area (10 kilometre radius) (DPaW, 2007- ). A site inspection of the application area undertaken by Department of Environment Regulation staff described the vegetation as a Wandoo woodland with *Allocasuarina campestris* and a sparse understorey of *Acacia acuminata* and introduced grasses (DER, 2014).

The application area falls within Beard vegetation association 7 which retains 11 percent native vegetation within the Avon Wheatbelt IBRA bioregion (Government of Western Australia, 2013). The local area (10 kilometre radius) retains less than 10 percent native vegetation. Given this, the application falls within a highly cleared landscape where any remaining vegetation may be significant in the movement of fauna through the landscape.

Carnaby's cockatoo is listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950* (WC Act) and endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Carnaby's cockatoo nest in large hollows of eucalyptus trees and forage on the seeds, nuts and flowers of a large variety of plants including Proteaceous species (Banksia, Hakea, Grevillea), Eucalypts, Corymbia species and a range of introduced species (Shah, 2006; Valentine and Stock, 2008).

Carnaby's cockatoo was once abundant in Western Australia. Since the late 1940s the species has suffered a 30 percent contraction in range, a 50 percent decline in population, and between 1968 and 1990 disappeared from more than a third of its breeding range. The application area falls within the northern range of the species where habitat loss and range contraction are the most marked (Saunders 1990; Johnstone and Storr 1998).

The Carnaby's cockatoo recovery plan (Department of Parks and Wildlife, 2013) summarises habitat critical to the survival of Carnaby's cockatoos as:

- The eucalypt woodlands that provides nest hollows used for breeding, together with nearby vegetation that provides feeding, roosting and watering habitat that supports successful breeding;
- Woodland sites known to have supported breeding in the past and which could be used in the future, provided adequate nearby food and/or water resources are available or are re-established; and
- In the non-breeding season the vegetation that provides food resources as well as the sites for nearby watering and night roosting that enable the cockatoos to effectively utilise the available food resources.

The recovery plan states, "Success in breeding is dependent on the quality and proximity of feeding habitat within 12 kilometres of nesting sites. Along with the trees that provide nest hollows, the protection, management and increase of this feeding habitat that supports the breeding of Carnaby's cockatoo is a critical requirement for the conservation of the species" (Department of Parks and Wildlife, 2013).

The recovery plan also states "In 1998, Saunders and Ingram considered that there were sufficient hollow-bearing eucalypts for Carnaby's cockatoos in the Wheatbelt, however the senescence and loss of ageing hollows, and competition for hollows is likely to be an issue for the conservation of the species. One of the indirect effects of broad-scale clearing for agriculture in the south-west of Western Australia is that there is a lack of recruitment of nesting trees (Saunders et al. 2003). As a consequence there may be a shortage of suitable nesting hollows in some areas in the future, regardless of whether there is sufficient suitable foraging habitat present within close proximity to those breeding sites" (Department of Parks and Wildlife, 2013).

As the application area contains potential and future nest sites (DER, 2014), is within known breeding areas and the local area is highly cleared, the application area contains vegetation defined as critical to the survival of the species (DEC, 2013).

Shield-backed trapdoor spider (*Idiosoma nigrum*) is listed as vulnerable under the EPBC Act and rare or likely to become extinct under the WC Act. Shield-backed trapdoor spider has been recorded three times within 14 kilometres of the application area within the same vegetation association and soil type (Parks and Wildlife, 2014). Threats to the species include road construction and maintenance as well as clearing native vegetation (Avon Catchment Council, 2007).

The shield-backed trapdoor spider Conservation Plan 2008 - 2013 (Avon Catchment Council, 2007) defines critical habitat for this species as open York gum (*Eucalyptus loxophleba*), Salmon gum (*E. salmonophloia*) and wheatbelt Wandoo (*E. capillosa*) woodland, where Jam (*Acacia acuminata*) forms a sparse understorey in heavy clay soils. As the mapped and observed vegetation matches the critical habitat definition of the species and given the proximity to known records, the application area may contain habitat for this species (DER, 2014).

As the application area forms significant habitat for Carnaby's cockatoo, may form significant habitat for Shield-backed trapdoor spider and falls within a highly cleared landscape where any remaining vegetation may be significant in the movement of endemic fauna; the application is at variance to this clearing Principle.

In order to address the potential impacts to fauna habitat, the applicant has committed to an offset securing 4.8 hectares of Carnaby's cockatoo and shield back trapdoor spider habitat, within the vicinity of the application area, under a conservation covenant (section 30 of the *Soil and Land Conservation Act 1945*).

**Methodology**    References:  
Avon Catchment Council (2007)  
DPaW (2007- )  
DEC (2012)  
Department of Parks and Wildlife (2013)  
DER (2014)  
Government of Western Australia (2013)  
Johnstone and Storr (1998)  
Saunders et al (2003)  
Saunders and Ingram (1998)  
Shah (2006)  
Valentine and Stock (2008)

GIS Datasets:  
- Carnaby Cockatoo breeding sites

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

**Comments**        **Proposal is not likely to be at variance to this Principle**  
One rare flora species has been recorded within the local area (10 kilometre radius). Approximately 10 kilometres from the application area. Given the distance of the record from the application area and as a site inspection of the application area did not reveal the presence of this species; it is not likely to be present within the application area. Given this the application is not likely to be at variance to this Principle.

**Methodology**    GIS Databases:  
- SAC Bio Datasets - accessed May 2015

**(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**        **Proposal is not at variance to this Principle**  
The closest threatened ecological community (TEC), Chert Hills of the Coomberdale floristic region falls approximately 30 kilometres from the application area. This community is described as tall, dense heath dominated by either *Regelia megacephala* or *Allocasuarina campestris* on exposed chert ridges; tall, dense heath or open low woodland over dense to mid-dense heath dominated by *Kunzea praestans* or *Allocasuarina campestris* on shallow loamy rocky soil over chert on the slopes and ridges of chert hills (DEC, 2000).

As the application area was observed with a sparse understorey and is not associated with a ridge or hill, it does not contain vegetation consistent with this TEC.

Given this and as no other TEC's are located within 50 kilometres of the application area, the proposed clearing is not at variance to this Principle.

**Methodology**    Reference:  
DEC (2000)  
  
GIS Databases:  
- SAC Bio Datasets - accessed May 2015

**(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 Proposal is at variance to this Principle**

The area under application is located within the Avon Wheatbelt Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion retains approximately 18 percent of its pre-European vegetation extent (Government of Western Australia, 2013).

The vegetation under application is mapped as Beard vegetation association 7 of which there is approximately 11 percent of its pre-European extent remaining within the Avon Wheatbelt bioregion (Government of Western Australia, 2013). Approximately 99 percent of this vegetation falls outside of conservation reserve and is therefore susceptible to further degradation.

The area under application is located within the Shire of Victoria Plains, within which there is approximately 15 percent pre-European extent remaining (Government of Western Australia, 2013). Approximately three percent of this vegetation falls within Department of Parks and Wildlife managed land.

The local area (10 kilometre radius) is highly cleared with approximately 10 percent vegetation remaining.

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

The application area has been mapped within breeding habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*). A site inspection of the application area confirmed the presence of habitat suitable for this species (DER, 2014). Given this the application area is significant habitat for the species. The application area may also be significant habitat for shield-backed trapdoor spider (*Idiosoma nigrum*).

Given the above, the area under application is a significant remnant in a highly cleared area and is at variance to this Principle.

In order to address the potential impacts to clearing within a highly cleared landscape, the applicant has committed to an offset securing 4.8 hectares of Carnaby's cockatoo and shield back trapdoor spider habitat, within the vicinity of the application area, under a conservation covenant (section 30 of the *Soil and Land Conservation Act 1945*).

	Pre-European (ha)	Current Extent Remaining (ha)	Remaining (%)	Extent in DPaW Managed Lands (%)
IBRA Bioregion* Avon Wheatbelt	9,517,109	1,778,407	18	9.7
Shire* Shire of Victoria Plains	255,060	40,596	15	2.8
Beard Vegetation Association within Bioregion* 7	144,189	17,225	11	0.91

**Methodology** References:  
Commonwealth of Australia (2001)  
DER (2014)  
\*Government of Western Australia (2013)

GIS Databases:  
- Sac Bio Datasets - accessed May 2015

**(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 Proposal is not at variance to this Principle**

The closest mapped water body to the application area is a minor perennial watercourse located approximately 80 metres from the application area. A site inspection of the application area did not reveal the presence of riparian vegetation, a wetland or watercourse (DER, 2014).

Given the above the application is not at variance to this clearing Principle.

**Methodology** References:  
DER (2014)  
  
GIS Datasets:  
- Hydrography linear

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

**Comments Proposal may be at variance to this Principle**

The Department of Environment Regulation undertook a site inspection of the application area on 1 April 2014 noting (DER, 2014):

- Wind erosion is unlikely given the linear nature of clearing and clearing purpose.
- Clearing the vegetation is unlikely to significantly increase surface water runoff.
- Given the topography, soil type and intended land use the risk of eutrophication is low.
- The proposed clearing areas are generally well drained.

The application area falls within Beard vegetation association 7 which retains 11 percent native vegetation within the Avon Wheatbelt IBRA bioregion (Government of Western Australia, 2013). The local area (10 kilometre radius) retains less than 10 percent native vegetation. Given this, the application falls within a highly cleared landscape.

Ground water salinity levels in the local area have been mapped as saline (Water and River Commission, 2000) at 7000-14000 milligrams per litre total dissolved solids. The application area has been mapped adjacent to an area of salinity risk.

Perennial deep rooted vegetation maintains groundwater levels through transpiration, as this vegetation is removed the water table rises bringing with it saline minerals accumulated in the sediment. This saline water table kills shallow rooted vegetation as it rises before the water component is evaporated on the surface leading to significant land degradation (Water and Rivers Commission, 2000). As the groundwater salinity within the application area has been mapped as saline and given the highly cleared local area, clearing further native vegetation may lead to land degradation in the form of salinity.

Given the above, the application may be at variance to this Principle.

**Methodology**

References:

DER (2014)

Government of Western Australia (2013)

GIS Datasets:

- Groundwater Salinity Statewide
- Moora 50cm orthomosaic
- Hydrography linear
- Topographic contours

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

The closest conservation reserve falls three kilometres west of the application area. Given the distance to this reserve it is not likely to be impacted by the proposed clearing and the application is not likely to be at variance to this clearing Principle.

**Methodology**

GIS Datasets:

- DPaW 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 Proposal may be at variance to this Principle**

Ground water salinity levels in the local area have been mapped as saline (Water and River Commission, 2000) at 7000-14000 milligrams per litre total dissolved solids. The application area has been mapped adjacent to an area of salinity risk.

Perennial deep rooted vegetation maintains groundwater levels through transpiration, as this vegetation is removed the water table rises bringing with it saline minerals accumulated in the sediment. This saline water table kills shallow rooted vegetation as it rises before the water component is evaporated on the surface leading to significant degradation (Water and Rivers Commission, 2000). As the groundwater salinity has been mapped as saline, clearing further native vegetation in this area may lead to deterioration in the quality of groundwater.

Given the above the application may cause deterioration in the quality of surface water and may be at variance to this clearing principle.

**Methodology**

References:

Water and River Commission (2000)



- GIS Data Sets:
- Salinity Risk LM 25M
  - Salinity Statewide
  - Hydrography linear (Hierarchical)

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

**Comments Proposal is not at variance to this Principle**

No watercourses or wetlands have been identified within the application area. A site inspection found that the proposed clearing area is generally well drained and no change in the occurrences of flooding is likely (DER, 2014).

The application is not at variance to this clearing principle.

- Methodology** References:
- DER (2014)
- GIS Datasets:
- Hydrography linear

**Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.**

**Comments** The application is to clear up to one hectare of native vegetation for the purpose of road realignment. The alignment chosen was one of two options considered by the Shire of Victoria Plains.

The current alignment, the subject of this application, would realign the road to a north-east curve with a T junction abutting to the West. The alternative alignment would maintain the current east-west road with a T junction abutting to the north and a slip lane installed. DER has been advised that traffic volumes through the intersection are low and approximately equal in all directions (DER, 2014).

Eight submissions from the public were received in relation to this application. The concerns raised include:

- The application area does not need to be cleared as an alternative alignment is available.
- The application area contains trees of a significant age.
- The application area contains significant Carnaby's cockatoo habitat and a known breeding site.

The concerns raised have been addressed in Principle (b).

In order to address the identified environmental impacts of the clearing, the applicant has committed to an offset securing 4.8 hectares of Carnaby's cockatoo and shield back trapdoor spider habitat, within the vicinity of the application area, under a conservation covenant (section 30 of the Soil and Land Conservation Act 1945).

No Aboriginal sites of significance are mapped within the application area.

- Methodology** References:
- DER (2014)

#### 4. References

- Avon Catchment Council (2007) Shield - backed Trapdoor Spider (*Idiosoma nigrum*) Conservation Plan No. ##. Avon Catchment Council, Western Australia.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DEC (2000) Heath dominated by one or more of *Regelia megacephala*, *Kunzea praestans* and *Allocasuarina campestris* on ridges and slopes of the chert hills of the Coomberdale Floristic Region Interim Recovery Plan 2000-2003. Department of Environment and Conservation, Perth, Western Australia.
- DPaW (2007 - ) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed March 2012.
- DEC (2012). Carnaby's cockatoo (*Calyptorhynchus latirostris*) Recovery Plan. Department of Environment and Conservation, Perth, Western Australia.
- DER (2014) Site Inspection Report for Clearing Permit Application CPS 6018/1, Wirrilda Road reserve and Gillingarra-Glentromie Road reserve. Site inspection undertaken 1 April 2014. Department of Environment and Conservation, Western Australia (DER Ref: A745957).
- Government of Western Australia (2013) 2013 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2013. WA Department of Environment and Conservation, Perth.
- Johnstone, R.E. and Storr, G.M. (1998) Handbook of Western Australian Birds, Volume I, Non-passerines (Emu to Dollarbird). Western Australian Museum, 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.

- Saunders, D. A., Smith, G. T., Ingram, J. A. and Forrester, R. I. (2003). Changes in a remnant of salmon gum *Eucalyptus salmonophloia* and York gum *E. loxophleba* woodland, 1978 to 1997. Implications for woodland conservation in the wheat-sheep regions of Australia. *Biological Conservation* 110: 245-256.
- Saunders, D.A. and Ingram, J.A. (1998). Twenty-eight years of monitoring a breeding population of Carnaby's cockatoo. *Pacific Conservation Biology*. 4: 261-270.
- Shah, B. (2006) Conservation of Carnaby's Black-Cockatoo on the Swan Coastal Plain, Western Australia. December 2006. Carnaby's Black-Cockatoo Recovery Project. *Birds Australia*, Western Australia.
- 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.
- Water and Rivers Commission (2001) *Position Statement: Wetlands*, Water and Rivers Commission, Perth.
- Valentine L. E. and Stock W. (2008) *Food Resources of Carnaby's Black-Cockatoo (*Calyptorhynchus latirostris*) in the Gnangara Sustainability Strategy study area*. Unpublished report to the Forests Products Commission. Available online: <http://ro.ecu.edu.au/ecuworks/6147>.