



## CLEARING PERMIT

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

### PERMIT DETAILS

Area Permit Number: 5950/3  
File Number: DER2014/000020-1  
Duration of Permit: From 29 March 2014 to 29 March 2019

### PERMIT HOLDER

Gregory Mark Mudie  
Elaine Valerie Mudie

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 1689 on Deposited Plan 208468, West River

### AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 71.9 hectares of native vegetation within the areas cross-hatched yellow on attached Plan 5950/3.

### CONDITIONS

#### 1. Vegetation management

- (a) Prior to 31 December 2017, the Permit Holder shall construct a fence enclosing the areas cross-hatched red on attached Plan 5950/3.
- (b) Within one month of installing the fence the Permit Holder shall notify the CEO in writing that the fence has been completed.
- (c) Prior to 31 December 2017, the Permit Holder shall give a conservation covenant under section 30B of the *Soil and Land Conservation Act 1945* for the areas cross-hatched red on attached Plan 5950/3, setting aside the *covenant area* for the protection and management of vegetation in perpetuity; and
- (d) Prior to 31 December 2017, the Permit Holder shall provide to the CEO a copy of the executed conservation 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 5950/3.

A handwritten signature in black ink, appearing to be "K. Faulkner", written over a horizontal line.

Kelly Faulkner  
EXECUTIVE DIRECTOR  
LICENSING AND APPROVALS

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

26 October 2016

# Plan 5950/3

119°33'36"

119°36'0"



## Legend

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



1:30,000

MGA 94

Geocentric Datum of Australia 1994

Kelly Faulkner

Date 20/10/16

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.: 5950/3  
Permit type: Area Permit

### 1.2. Proponent details

Applicant's name: Mrs Elain Valeria Mudie  
Mr Gregory Mark Mudie

### 1.3. Property details

Property: LOT 1689 ON PLAN 208468 (WEST RIVER 6346)  
Local Government Area: Shire of Ravensthorpe

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
71.9	-	Mechanical Removal	Grazing & Pasture

### 1.5. Decision on application

Decision on Permit Application: Granted  
Decision Date: October 2016

Reasons for Decision: The clearing permit application was received on 1 April 2016 and has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986*, and it has been concluded that the proposed clearing is at variance to principle (f), may be at variance to principle (a) and (b) and is not likely to be at variance to the remaining clearing principles.

The permit has been conditioned to ensure that significant native vegetation remnants adjoining the vegetation under application are fenced and conserved; minimising the potential environmental impacts of the clearing.

The Delegated Officer determined that the proposed clearing is unlikely to have any significant environmental impacts. State policies and other relevant policies have been taken into consideration in the decision to grant a clearing permit.

## 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 within the amended application area is mapped as Beard vegetation association 519 which is described as medium forest, jarrah-marri (Shepherd et al., 2001).	The application is to amend Clearing Permit CPS 5950/2 to increase the clearing area by approximately 85.5 hectares to 110.5 hectares and to increase the overall footprint by approximately 85.5 hectares to 165.5 hectares.	Completely Degraded: No longer intact; completely /almost completely without native species (Keighery, 1994).  To  Very Good; Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).	The condition of the vegetation within the amended application area was determined via a site inspection undertaken by officers of the Department of Environment Regulation (2016).

## 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 may be at variance to this Principle**  
Clearing Permit CPS 5950/2 authorises the clearing of 25 hectares of native vegetation within an overall footprint of approximately 80 hectares for agricultural purposes. The application is to amend Clearing Permit CPS 5950/2 to increase the clearing area by approximately 85.5 hectares to 110.5 hectares and to increase the overall footprint by approximately 85.5 hectares to 165.5 hectares. The amended application area comprises 25 strips of vegetation that are approximately 0.7 to 1.5 kilometres in length, approximately 30 to 60 metres in width and approximately 100 to 200 metres apart, and two small remnants.

The clearing authorised under Clearing Permit CPS 5950/2 has been undertaken (being 25 hectares). An approximate determination of vegetation condition within the remainder of the amended application area (being 85.5 hectares) found (DER, 2016):

- approximately 4.7 per cent (4.0 hectares) is in a very good (Keighery, 1994) condition;
- approximately 4.7 per cent (4.0 hectares) is in a good to very good (Keighery, 1994) condition;
- approximately 34 per cent (29.1 hectares) is in a good (Keighery, 1994) condition;
- approximately 18 per cent (15.4 hectares) is in a degraded to good (Keighery, 1994) condition;
- approximately 22.7 per cent (19.4 hectares) is in a degraded (Keighery, 1994) condition; and
- approximately 15.9 per cent (13.6 hectares) is in a completely degraded (Keighery, 1994) condition and has been cleared of native vegetation. Visual observations on site (DER, 2016) indicate that this portion of the amended application may have been cleared at approximately the same time as the clearing undertaken in accordance with Clearing Permit CPS 5950/2 but in the absence of a clearing permit.

On the basis of the above, the amended application area is calculated to be 71.9 hectares of native vegetation.

The local area (defined as a 10 kilometre radius surrounding the amended application area) retains approximately 20 per cent vegetation. The fauna linkage values within the local area were assessed as part of the Western Australian South Coast Macro Corridor Network (Wilkins et al., 2006). Although vegetation to the north, east and south has been mapped within ecological linkages, the amended application area is surrounded by agricultural land and does not form part of a recognised linkage. Given this, and as it is fragmented into strips of vegetation, it is considered that the amended application area is unlikely to contain significant habitat for the movement of fauna across the landscape.

Carnaby's cockatoo (*Calyptorhynchus latirostris*) is listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950* and has been recorded within the local area (10 kilometre radius). A site inspection of the amended application area recorded *Eucalyptus*, *Banksia* and *Hakea* species on site which are deemed suitable foraging habitat for this species (DER, 2016). As the vegetation in a degraded (Keighery, 1994) condition contains an intact overstorey, it is still likely to contain foraging habitat for Carnaby's cockatoo. No trees of an age and size as to support Carnaby's cockatoo nesting are present (DER, 2016).

Based on the presence of foraging habitat within the amended application area and location within an extensively cleared landscape, the amended application area is likely to contain significant habitat for Carnaby's cockatoo. Noting that 25 hectares of the amended application area has been cleared under Clearing Permit CPS 5950/2 and a further 13.6 hectares has been cleared, it is calculated that approximately 71.9 hectares of foraging habitat occurs within the amended application area.

The threatened ecological community (TEC) 'Proteaceae dominated kwongan shrublands of the southeast coastal floristic province of Western Australia' is mapped approximately two kilometres from the amended application area. In Western Australia, this TEC has been afforded Priority 3 conservation status by the Department of Parks and Wildlife (Parks and Wildlife). Although the amended application area is located in close proximity to this TEC, it is outside the mapped distribution of the TEC, and it is considered that the proposed clearing is unlikely to impact on the TEC (Parks and Wildlife, 2016a).

An assessment of the mapped and observed vegetation type (DER, 2016) against habitat requirements for conservation significant flora species recorded from the local area (Western Australian Herbarium, 1998-) determined that the application area may contain one priority species. This species is listed as Priority 2 by Parks and Wildlife, has a range of approximately 143 kilometres and has been recorded approximately 4.25 kilometres from the amended application area within a paddock windrow. Given this, the amended application area may contain this species.

As the amended application area contains Carnaby's cockatoo foraging habitat and may contain a Priority 2 flora species, it may comprise a high level of biodiversity.

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

Large remnants of native vegetation are present on the property, adjoining the application area. As the vegetation within these areas is in an excellent (Keighery, 1994) condition (DER, 2016), they are likely to be of greater value as significant habitat for fauna and habitat for priority flora than the application area. These areas are currently not fenced to exclude access by livestock. It is considered that restricting livestock access to these areas and ensuring their viability into the future through fencing and a conservation covenant will assist in mitigating impacts to conservation-significant flora and fauna species as a result of the proposed clearing.

#### Methodology

##### References:

DER (2016)  
Parks and Wildlife (2016a)  
Keighery (1994)  
Western Australian Herbarium (1998-)  
Wilkins et al. (2006)

##### GIS Datasets:

SAC Bio Datasets - accessed May 2016

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

The local area (10 kilometre radius) retains approximately 20 per cent native vegetation. Fauna habitat within the amended application area is comprised of strips of vegetation running parallel (approximately 100 to 200 metres apart and 30 to 60 metres wide) through agricultural land. The vegetation ranges from very good to completely degraded (Keighery, 1994) condition.

The fauna linkage values within the local area were assessed as part of the Western Australian South Coast Macro Corridor Network (Wilkins et al., 2006). Although vegetation to the north, east and south has been mapped within ecological linkages, the amended application area is surrounded by agricultural land and does not form part of a recognised linkage. Given this, and as it is fragmented into strips of vegetation, it is considered that the amended application area is unlikely to contain significant habitat for the movement of fauna across the landscape.

Eleven fauna species of conservation significance have been recorded within 20 kilometres of the amended application area (Parks and Wildlife, 2007-). The amended application area may provide suitable habitat for five of these being; Carnaby's cockatoo (*Calyptorhynchus latirostris*), malleefowl (*Leipoa ocellata*), and western heath mouse (*Pseudomys shortridgei*) all listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950*, and the priority fauna species western rosella (*Platycercus icterotis* subsp. *xanthogenys*; Priority 4) and western mouse (*Pseudomys occidentalis*; Priority 4).

Carnaby's cockatoos were once abundant in Western Australia, however since the late 1940s the species has suffered a 30 per cent contraction in range, a 50 per cent decline in population and, between 1968 and 1990, disappeared from more than a third of its breeding range (Saunders, 1990; Saunders and Ingram, 1998; Shah, 2006; Garnett et al., 2011).

The Carnaby's cockatoo recovery plan (Parks and Wildlife, 2013) summarises habitat critical to the survival for this species 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 also 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' (Parks and Wildlife, 2013).

Carnaby's cockatoo forage on the seeds, nuts and flowers of a large variety of plants including Proteaceous and *Eucalyptus* species, *Allocasuarina* species, *Corymbia* species and a range of introduced species (Valentine and Stock, 2008). Diverse Proteaceae species including *Eucalyptus*, *Hakea* and *Banksia* species were observed within the amended application area. On this basis it is considered that the amended application area contains suitable foraging habitat for Carnaby's cockatoo.

Breeding habitat for Carnaby's cockatoos is defined as trees of species known to support breeding within the range of the species which either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) to develop a nest hollow. For most tree species, suitable DBH is 500 millimetres (Commonwealth of Australia, 2012). For Carnaby's cockatoos the entrance to hollows must have a minimum diameter of at least 100 millimetres to be suitable (DEC, 2010). No trees with significant hollows or of an appropriate size were identified within the amended application area during the site inspection (DER, 2016).

Based on the presence of foraging habitat within the amended application area and location within an extensively cleared landscape, the amended application area may contain significant habitat for Carnaby's cockatoo. As the vegetation in a degraded (Keighery, 1994) condition contains an intact overstorey, it is still likely to contain foraging habitat for Carnaby's cockatoo. Noting that 25 hectares of the amended application area has been cleared under Clearing Permit CPS 5950/2 and a further 13.6 hectares has been cleared, it is calculated that approximately 71.9 hectares of foraging habitat occurs within the amended application area.

The malleefowl occurs in shrublands and low woodlands that are dominated by mallee vegetation (DotE, 2015a). The significant decline in malleefowl numbers has resulted from a number of threats including loss of vegetation due to clearing for agricultural purposes (DotE, 2015a). Malleefowl require a sandy substrate and abundance of leaf litter to build mounds for roosting purposes (DotE, 2015a). Although transient individuals may utilise the area, the 30 to 40 metre width of the strips of vegetation are unlikely to be adequate for nesting and no malleefowl mounds were observed during a site inspection (DER, 2016). On this basis it is considered that the amended application area is unlikely to provide significant habitat for this species.

The western heath mouse inhabits dry heath, open woodland and forest habitats with a preference for a structurally complex heath (DotE, 2015). As the species is dependent on large areas of native vegetation for survival, it is considered that the strips of vegetation within the amended application area are unlike to contain significant habitat for this species (DotE, 2015).

Noting that Priority 4 species are defined as species that are not currently in need of special attention unless current circumstances change or species that are close to qualifying as vulnerable but are not listed as conservation dependent, it is considered that the strips of vegetation within the amended application area are unlikely to provide significant habitat for the western rosella or western mouse.

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

Large remnants of native vegetation are present on the property, adjoining the application area. As the vegetation within these areas is in an excellent (Keighery, 1994) condition (DER, 2016), they are likely to be of greater value as significant habitat for fauna and habitat for priority flora than the application area. These areas are currently not fenced to exclude access by livestock. It is considered that restricting livestock access to these areas and ensuring their viability into the future through fencing and a conservation covenant will assist in mitigating impacts to conservation-significant flora and fauna species as a result of the proposed clearing.

**Methodology**    References:  
Commonwealth of Australia (2012)  
DEC (2010)  
DEC (2012)  
DER (2016)  
DotE (2015a)  
DotE (2015b)  
Garnett et al. (2011)  
Parks and Wildlife (2007-)  
Parks and Wildlife (2013)  
Parks and Wildlife (2015)  
Saunders (1990)  
Saunders & Ingram (1998)  
Shah (2006)  
Valentine & Stock (2008)  
Wilkins et al. (2006)

**(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 record is located approximately five kilometres from the amended application area. The Western Australian Herbarium (1998-) data notes that this record is unconfirmed/unsubstantiated information and that the habitat appears unsuitable. This species is known from a range of 430 kilometres with a majority of records to the east of the amended application area. The preferred habitat is moist sandy soil of heath communities (Western Australian Herbarium, 1998-; Brown et al., 1998).

Noting the records for this species in the local area are likely to be in error, the only watercourse within the amended application area is in a degraded (Keighery, 1994) condition, and the past history of grazing within property, it is considered that the amended application area is unlikely to include this species.

Although vegetation to the north, east and south has been mapped within ecological linkages, the amended application area is surrounded by agricultural land and does not form part of a recognised linkage. Given this, and as it is fragmented into strips of vegetation, it is considered that the amended application area is unlikely to be significant in the movement of biological material through the landscape.

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

**Methodology**    References:  
Brown et al. (1998)  
Keighery (1994)  
Western Australian Herbarium (1998-)

GIS Datasets:  
SAC Bio Datasets - accessed May 2016

**(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**

The threatened ecological community (TEC) 'Proteaceae dominated kwongan shrublands of the southeast coastal floristic province of Western Australia' is mapped approximately two kilometres from the amended application area. This TEC is listed as endangered under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). In Western Australia, this TEC has been afforded Priority 3 conservation status by Parks and Wildlife.

The Kwongkan Shrublands TEC is predominantly located within the Esperance Sandplains and Mallee bioregions, and typically occurs on sandplains, occupying lower and upper slopes and ridges, as well as uplands, where rainfall ranges from 400 to 800 millimetres a year. It largely occurs on duplex soils and deep to shallow soils on the sandplains, and is dominated by plants from the family Proteaceae including from the genera *Adenanthos*, *Banksia*, *Grevillea*, *Hakea*, *Isopogon* and *Lambertia* species (Threatened Species Scientific Committee, 2014).

This TEC has a fragmented geographic distribution whereby a significant portion of its mapped distribution has been lost, with remaining areas left vulnerable to the impacts of land clearing, dieback, changing fire regimes, climate change and invasive species (Threatened Species Scientific Committee, 2014). The community is intolerant of frequent disturbance due to land modification and clearance, and the intention of the community's listing as a TEC is to protect it from further fragmentation.

The Commonwealth of Australia (2012) notes that detailed mapping of this community is not available, and ground-truthing is required to verify if a site meets the required diagnostic criteria to be the described TEC. Given this, the mapped occurrences of this TEC are indicative only and display its potential distribution.

Although the amended application area is located in close proximity to this TEC, it is outside its mapped distribution of the TEC, and it is considered that the proposed clearing is unlikely to impact the TEC (Parks and Wildlife, 2016a).

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

**Methodology**    References:  
DER (2015)  
Keighery (1994)  
Parks and Wildlife (2015c)  
Parks and Wildlife (2016a)  
Threatened Species Scientific Committee (2014)

GIS Databases:  
SAC Bio Datasets (Accessed May 2016)

**(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 amended application area is located within the Mallee Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion retains approximately 56 per cent pre-European vegetation extent (Government of Western Australia, 2015).

The amended application area is mapped as Beard vegetation association 519 of which there is approximately 59 per cent pre-European extent remaining within the bioregion (Government of Western Australia, 2015).

The amended application area is located within the Shire of Ravensthorpe, within which there is approximately 62 per cent of pre-European extent remaining (Government of Western Australia, 2015).

The local area (10 kilometre radius) retains approximately 20 per cent (9,829 hectares) of pre-European native vegetation cover remaining within the local area. The vegetation within the amended application area represents 0.3 per cent of the native vegetation within the local area.

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). Noting the extent of vegetation remaining in the local area, it is considered that the amended application area may be located within a highly cleared landscape.

The amended application area includes approximately 71.9 hectares of Carnaby's cockatoo foraging habitat and may contain a Priority 2 flora species.

Large remnants of native vegetation are present on the property, adjoining the application area. As the vegetation within these areas is in an excellent (Keighery, 1994) condition (DER, 2016), they are likely to be of greater value as significant habitat for fauna and habitat for flora than the application area. These areas are currently not fenced to exclude access by livestock. It is considered that restricting livestock access to these areas and ensuring their viability into the future through fencing and a conservation covenant will assist in conserving large intact remnants within the local area.

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

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife Managed Lands (%)
<b>IBRA Bioregion*</b>				
Mallee	7,395,894	4,180,977	56	55
<b>Shire*</b>				
Shire of Ravensthorpe	982,194	605,475	62	32
<b>Beard Vegetation Association in Bioregion*</b>				
519	2,100,314	1,248,662	59	18

**Methodology** References:  
Commonwealth of Australia (2001)  
DER (2016)  
\*Government of Western Australia (2015)  
Keighery (1994)

**(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**

A minor non-perennial watercourse traverses the amended application area. Within the amended application area the vegetation associated with this watercourse is in a degraded (Keighery, 1994) condition due to a past history of grazing (DER, 2016). This watercourse originates approximately 10 metres from the amended application area, and feeds two small dams on the property before terminating in a small lake.

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

Noting the condition of the vegetation associated with the watercourse, origin of the watercourse and its minor nature, it is considered that the impacts are unlikely to be significant.

**Methodology** References:  
Keighery (1994)

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

Soils within the amended application area have been mapped as the following land units (Schoknecht et al., 2004):

- Sharpe 2 which is described as level to very gently inclined plains, including some very gently inclined valley slopes. Alkaline grey shallow sandy duplex soils, calcareous loamy earths, salt lake soils, pale deep sands and yellow/brown sandy duplex soils;
- Sharpe 3 subsystem which is described as a combination of the gently undulating soil landscapes of Sharpe 1 and Sharpe 2 with dominantly deep sand sheets, lunettes or linear dunes occurring across the area;
- Lagan 1 which is described as a chains of salt lakes (often large saline playas) and associated lunettes. Soils include salt lake soils, saline clays and loams, calcareous loamy earths and alkaline grey shallow sandy duplexes;
- Newdegate 2 which is described as lower to upper slopes, broad crests and upland plains. Soils are mainly grey and yellow/brown sandy duplex soils, often alkaline with hard setting surfaces, and duplex sandy gravels;
- Newdegate 6 which is described as areas of significant rock outcrop including monadnocks, and sheet rock. Associated soils include stony soils, yellow/brown deep sandy duplex soils, deep sands and red soils; and
- Newdegate 3 which is described as sand sheets and linear dunes forming low rises with pale deep sands, grey sandy duplex soils and alkaline grey shallow sandy duplex soils.

The mapped land units have been identified as having a low risk of water erosion, water logging and eutrophication (Schoknecht et al., 2004). Given this and the degraded (Keighery, 1994) condition of the minor watercourse present, the proposed clearing is not likely to cause appreciable land degradation through these processes.



All mapped land units except Newdegate 3 have been identified as having a low risk of wind erosion (Schoknecht et al., 2004). Although Newdegate 3 has been mapped with a high risk of wind erosion, given the limited amount of clearing proposed to be undertaken on this unit (three hectares in a degraded condition), the proposed clearing is not likely to cause land degradation through wind erosion.

Map units Sharpe 2 and Lagan 1 have been identified as having a high risk of salinity. Further evidence of this is present in the form of salt lakes in close proximity to the amended application area (approximately 400 metres).

The Commissioner of Soil and Land Conservation (2016) advised that the removal of the wind breaks is unlikely to cause appreciable land degradation due to the combination of the nature and spatial arrangement of the areas to be cleared with current best practise cropping.

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

**Methodology**    References:  
Commissioner of Soil and Land Conservation (2016)  
Keighery (1994)  
Schoknecht et al. (2004)

GIS Datasets:  
Land degradation risk categories  
Hydrography linear  
Soil subsystem

**(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 Fitzgerald River National Park is located approximately 10 kilometres from the amended application area and is the closest conservation reserve to the amended application area. The local area (10 kilometre radius) retains approximately 20 per cent native vegetation cover.

The ecological linkage values within the local area were assessed as part of the Western Australian South Coast Macro Corridor Network (Wilkins et al., 2006). Although vegetation to the north, east and south has been mapped within ecological linkages, the amended application area is surrounded by agricultural land and does not form part of a recognised linkage. Given this, and as it is fragmented into strips of vegetation, it is considered that the amended application area is unlikely contain significant habitat for the movement of fauna or biological material across the landscape.

As the amended application area is not located in close proximity to a conservation reserve, it is considered that the proposed clearing is unlikely to increase the spread of weeds and dieback into any reserves.

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

**Methodology**    References:  
Wilkins et al. (2006)

GIS Datasets:  
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**

A minor non-perennial watercourse traverses the amended application area. Within the amended application area the vegetation associated with this watercourse is in a degraded (Keighery, 1994) condition due to a past history of grazing (DER, 2016). This watercourse originates approximately 10 metres from the amended application area, and feeds two small dams on the property before terminating in a small lake.

The land units mapped within the amended application area have been identified as having a low risk of water erosion, water logging and eutrophication (Schoknecht et al., 2004). Given this and the degraded (Keighery, 1994) condition of the vegetation associated with watercourse, it is considered that the proposed clearing is not likely to deteriorate the quality of surface water or groundwater through these processes.

Mapped land units Sharpe 2 and Lagan 1 have been identified as having a high risk of salinity. Further evidence of this is present in the form of salt lakes in close proximity to the amended application area (approximately 400 metres).

The Commissioner of Soil and Land Conservation (2016) advised that the removal of the wind breaks proposed is unlikely to cause salinity due to a combination of the nature and spatial arrangement of application area and with current best practise cropping. Given this, the proposed clearing is not likely to deteriorate the quality of surface water or groundwater through salinity.

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

**Methodology**    References:  
Commissioner of Soil and Land Conservation (2016)  
DER (2016)  
Keighery (1994)  
Schoknecht et al. (2004)

GIS Datasets:  
Land degradation risk categories  
Hydrography linear  
Soil subsystems

**(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 mapped soil units within the amended application area have been mapped with a low risk of waterlogging and flooding (Schoknecht et al., 2004). The Commissioner of Soil and Land Conservation (2016) advised that the proposed clearing is not likely to cause flooding.

The amended application area does not fall in close proximity to a major watercourse. Rainfall within the local area (10 kilometre radius) has been mapped as 400 to 500 millimetres per year while the evapotranspiration rate has been mapped as 400 to 500 millimetres per year.

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

**Methodology**    References:  
Commissioner of Soil and Land Conservation (2016)  
Schoknecht et al. (2004)

GIS Datasets:  
Hydrography linear

**Planning instrument, Native Title, Previous EPA decision or other matter.**

**Comments**      Clearing Permit CPS 5950/1 was granted on 27 February 2014, authorising the clearing of 50 hectares of native vegetation. The condition of the vegetation was assessed as degraded (Keighery, 1994) based on a site inspection undertaken by the Department of Agriculture and Food (DAFWA, 2013). The assessment of application CPS 5950/1 identified that strips of vegetation would be retained through the paddocks.

Amended Clearing Permit CPS 5950/2 was granted on 11 February 2016, reducing the authorised clearing to 25 hectares within an overall footprint of approximately 80 hectares as a portion of the property had been sold.

An application to amend Clearing Permit CPS 5950/2 was received on 1 April 2016 following a change in property ownership. The application is to amend Clearing Permit CPS 5950/2 to increase the clearing area by approximately 85.5 hectares to 110.5 hectares and to increase the overall footprint by approximately 85.5 hectares to 165.5 hectares.

It is noted that the clearing of 25 hectares authorised under Clearing Permit CPS 5950/2 has been undertaken, and that approximately 13.6 hectares has been cleared within the amended application area. Therefore the amendment application is calculated to be for 71.9 hectares of native vegetation.

The amended application area is zoned General Agriculture under the local town planning scheme zone.

No Aboriginal Sites of Significance have been mapped within the amended application area.

The application was advertised in *The West Australian* newspaper on 24 April 2016 with a 21 day submission period. One submission was received in relation to this application, advising that the increased size of proposed clearing is not opposed on the basis that the applicant will be required to fence off the larger intact bushland areas (Submission, 2016).

On 15 September 2016 a DER Delegated Officer wrote to the applicant (DER ref. A1167362), advising that environmental impacts and relevant matters were identified during the assessment:

- approximately 61.4 per cent (52.5 hectares) of the vegetation is in a degraded to good (Keighery, 1994) or better condition, which may comprise significant foraging habitat for Carnaby's cockatoo, may contain a Priority 2 flora species and may be significant as a remnant of vegetation; and
- approximately 22.7 per cent (19.4 hectares) of the vegetation is in a degraded (Keighery, 1994) condition which may comprise significant foraging habitat for Carnaby's cockatoo and includes a watercourse, but is not likely to be at variance to the remaining principles on the basis of its condition.

The Delegated Officer's letter advised that pursuant to section 51E(7)(a) of the Act a permit could be granted for the clearing to 19.4 hectares, and invited the applicant to provide further information within 30 days.

On 20 September 2016 the Delegated Officer sought additional advice from Parks and Wildlife in respect to the potential extent of environmental impacts to black cockatoos and to priority flora if clearing were to be carried out (DER ref. A1167920). On 6 October 2016 Parks and Wildlife advised:

The value of the area to Carnaby's cockatoo is dependent on an assessment of the food resources available in the application areas compared to that in the remnants proposed to be retained, and other remnants in the surrounding areas. Incremental loss of feeding habitat may have an impact on the local occurrence of Carnaby's cockatoo, but the significance of this cannot be determined from the information provided.

The potential impact on priority flora is not able to be determined without a flora survey to identify the occurrence the specific species in question, and the significance of any populations in the context of the species overall status. The Department's South Coast Region identified that the priority flora *Eucalyptus sinuosa* could occur in the location, and also the threatened flora *Anigozanthos bicolor* subsp. *minor* depending on the extent of grazing history in the remnants. Given that some of the applied vegetation strips are relatively wide (up to 60m), and the photographic evidence indicates that at least some of the areas are in good condition, the potential for conservation significant occurrences of these species cannot be discounted.

The Department notes that the original application to clear on this location in 2014 included the retention of the vegetation strips, presumably for the purpose of soil and/or water conservation. The sustainability of the proposed residual remnant vegetation areas will be highly dependent on the maintenance of the soil and water conservation status in the surrounding landscape. Furthermore, the recommendation from South Coast Region that the residual remnant vegetation areas be fenced and managed in a stock-free manner is supported to ensure the greatest capacity for sustainability of these areas to reduce the risk of exacerbated soil and water degradation, and to maintain the viability of these habitats for regional fauna and flora, including as feeding habitat for Carnaby's cockatoo.

On 10 October 2016 DER officers met with the applicant to discuss the application and Parks and Wildlife's additional advice. During the meeting the applicant provided a written response to the Delegated Officer's letter of 15 September 2016 (DER ref. A1178062):

- It has not been acknowledged that the applicant offered to fence the large areas of unfenced native vegetation on the property, which will prevent their degradation through grazing, protect fauna habitat and offset the clearing applied for.
- To date the applicant has not seen Carnaby's cockatoo foraging on the farm.
- The claim that priority flora *Eucalyptus sinuosa* may be present is irrelevant as Principle (c) states that the record of rare flora 'is unconfirmed/unsubstantiated information and that the habitat appears unsuitable ... Noting the records for this species in the local area are likely to be in error', and the corridors applied to be cleared are already degraded through grazing.
- The applicant is confused with the calculation of the size of the proposed clearing, and considered that the extent of native vegetation within the corridors has been over-estimated.
- The applicant advised that the clearing of 13.6 hectares within the amended application area and outside the area authorised under Clearing Permit CPS 5950/2 was undertaken by the previous owner.
- The applicant submitted that grant of a permit for 19.4 hectares of the clearing applied for will not solve the problem of efficiency, the corridors are not parallel and the distances between them vary, the farm machinery is up to 40 metres wide and doubling up of fertiliser and chemicals occurs.
- The applicant advised that the latest farming techniques are applied, including minimum till seeding and GPS tram lining, aiming for no overlap of chemicals or fertiliser and minimal soil disturbance.
- The applicant advised that over 30,000 trees have been planted to preserve waterways, windbreaks and corridors, and that 40 kilometres of fencing has been constructed to preserve natural areas on their farms.
- The applicant provided an economical justification for the proposed clearing prepared by an independent farm consultant, which found that the thin, irregular strips of land are unviable.

On 13 October 2016 the Delegated Officer wrote to the applicant, notifying of the intent to amend Clearing Permit CPS 5950/2 (DER ref. A1180528). On 17 October 2016 the applicant waived the 28 day notification period, subject to the revision of an area conditioned under the draft amended Clearing Permit CPS 5950/3 (DER ref. A1181174).

**Methodology**    References:  
DAFWA (2013)  
EPA (2000)  
Keighery (1994)  
Parks and Wildlife (2016b)  
Submission (2016)

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