



## CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

|                               |  |
|-------------------------------|--|
| <b>Purpose Permit number:</b> | CPS 7218/1                                 |
| <b>Permit Holders:</b>        | Kevin Arthur Watts<br>Frances Amelia Watts |
| <b>Duration of Permit</b>     | From 29 April 2017 to 29 April 2022        |

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

### PART I – CLEARING AUTHORISED

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

Clearing for the purpose of cropping and pasture.

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

Lot 10318 on Deposited Plan 206638, Boothendarra.

**3. Area of Clearing**

The Permit Holder shall not clear more than a combined 2737 *Eucalyptus tottiana* (coastal blackbutt) and *Nuytsia floribunda* (Christmas tree) trees within the area hatched yellow on attached Plan 7218/1.

**4. Application**

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

### PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

**5. Avoid, minimise etc clearing**

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- avoid the clearing of native vegetation;
- minimise the amount of native vegetation to be cleared; and
- reduce the impact of clearing on any environmental value.

**6. Dieback 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 *dieback*:

- clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- ensure that no *dieback* affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

## DEFINITIONS

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

*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;



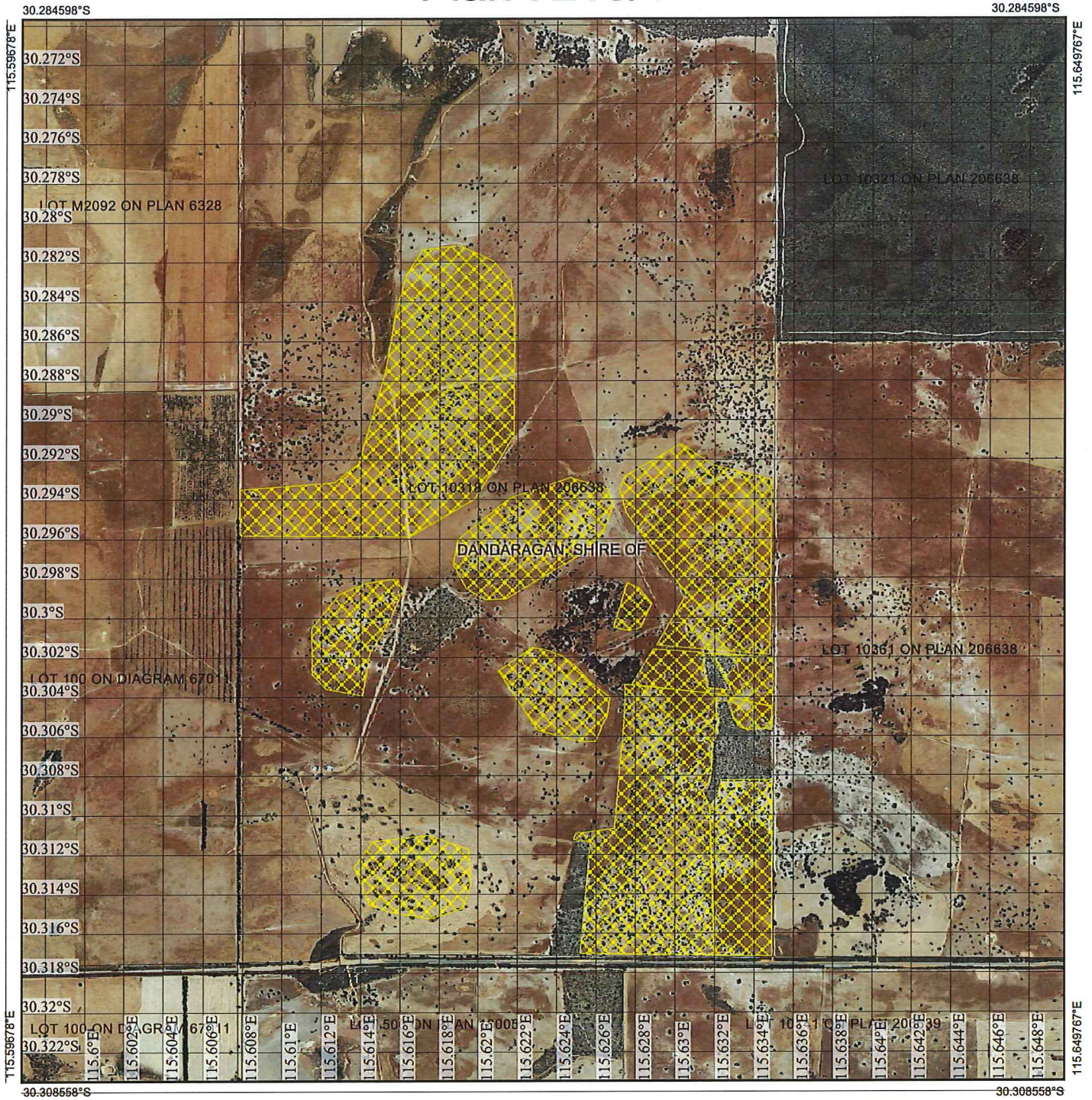
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Mathew Gannaway  
MANAGER  
CLEARING REGULATION

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

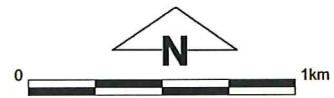
27 March 2017

# Plan 7218/1



## Legend

-  Imagery
-  Clearing Instruments Activities
-  Local Government Authority



1:27,002

(Approximate when reproduced at A4)

GDA 94 (Lat/Long)

Geocentric Datum of Australia 1994

*Matthew Gannaway* Date 27/03/2017  
 Matthew Gannaway

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



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## 1. Application details

### 1.1. Permit application details

Permit application No.: 7218/1  
Permit type: Purpose Permit

### 1.2. Applicant details

Applicant's name: Mrs Frances Amelia Watts  
Mr Kevin Arthur Watts

### 1.3. Property details

Property: Lot 10318 on Deposited Plan 206638, Boothendarra  
Local Government Authority: Shire of Dandaragan  
DER Region: Midwest  
DPaW District: Moora  
Localities: Boothendarra

### 1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|--------------------|-----------|--------------------|---------------------|
|                    | 2737      | Mechanical Removal | Grazing & pasture   |

### 1.5. Decision on application

Decision on Permit Application: Granted  
Decision Date: 23 March 2017

#### Reasons for Decision:

The clearing permit application was received on 3 August 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*. It has been concluded that the proposed clearing may be at variance to principle (g) and is not likely to be at variance to the remaining clearing principles.

The applicant has amended the proposed clearing from 500 hectares to 2737 trees, excluding vegetation in a very good condition and specified that two types of tree are proposed for clearing, being *Eucalyptus tottiana* (coastal blackbutt) and *Nuytsia floribunda* (Christmas tree). The assessment of the initial 500 hectare application area determined that the proposed clearing would impact on significant foraging habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*). It is considered that the amendment has adequately minimised impacts to significant foraging habitat for this species, noting the completely degraded (Keighery, 1994) condition of the amended application area and presence of large areas of higher quality foraging habitat within the nearby Boothendarra Nature Reserve, Watheroo National Park and Badgingarra National Park, as well as two other un-named reserves managed by the Department of Parks and Wildlife (Parks and Wildlife).

The assessment of the initial 500 hectare application area determined that parkland cleared areas may contain two Threatened tree species. To minimise impacts to Threatened flora, the permit will specify that only *Eucalyptus tottiana* and *Nuytsia floribunda* are permitted to be cleared.

Through assessment it was determined that the proposed clearing may cause appreciable land degradation in the form of soil erosion caused by wind. To mitigate the potential for soil erosion, a condition has been placed on the permit that requires the applicant to sow pasture over cleared areas within three months from the date of clearing.

Through assessment it was determined that there is a risk that the clearing may cause the spread of dieback into adjacent areas of remnant vegetation. To mitigate potential impacts to adjacent remnant vegetation, a dieback management condition has been placed on the permit requiring earth-moving machinery to be clean of dieback contamination when entering and exiting the clearing area.

In determining to grant a clearing permit subject to conditions, the Delegated Officer found that the proposed clearing is unlikely to lead to an unacceptable risk to the environment.

## 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   |
|---|---|--|---|
| Beard vegetation association 1031 is described as mosaic: shrublands; <i>Hakea</i> scrub-heath / shrublands; <i>Dryandra</i> heath (Shepherd et al., 2001). | The applicant proposes to clear up to a combined 2737 <i>Eucalyptus tottiana</i> and <i>Nuytsia floribunda</i> trees within Lot 10318 on Deposited Plan 206638, Boothendarra, for the purpose of cropping and pasture.<br><br>The application was initially for the proposed clearing of 500 hectares and included vegetation in a very good (Keighery, 1994) condition. The proponent has since minimised the extent of clearing to 2737 trees within an area that has undergone significant historical disturbance. | Completely Degraded: No longer intact; completely /almost completely without native species (Keighery 1994). | The vegetation condition and composition was identified by Department of Environment Regulation (DER) Officers during a site inspection (DER, 2016).<br><br>The 2737 trees under application are comprised of largely scattered <i>Eucalyptus tottiana</i> with occasional <i>Nuytsia floribunda</i> over paddock weeds and pasture. The trees are within an area that is considered to be in a completely degraded (Keighery, 1994) condition (DER, 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 is not likely to be at variance to this Principle

The applicant proposes to clear up to a combined 2737 scattered *Eucalyptus tottiana* and *Nuytsia floribunda* trees within Lot 10318 on Deposited Plan 206638, Boothendarra, for the purpose of cropping and pasture. The trees are within an area that has been previously parkland cleared and is in completely degraded (Keighery, 1994) condition, with groundcover largely comprising paddock weeds and pasture (DER, 2016).

The Commissioner of Soil and Land Conservation (CSLC) advised that four map units have been recorded over the application area, which are largely comprised of a mixture of pale and yellow deep sands and gravelly deep sands (CSLC, 2016).

According to available datasets there are no Priority Ecological Communities (PEC's) mapped within the local area (10 kilometre radius surrounding the application area).

As assessed under Principle (d), the application area is within close proximity to areas mapped as 'likely to occur' for the *Banksia* Woodlands of the Swan Coastal Plain threatened ecological community (TEC) (Threatened Species Scientific Committee, 2016). The vegetation within the application area is not consistent with the description of this TEC (DER, 2016; Threatened Species Scientific Committee, 2016) and the proposed clearing is not likely to impact on this community.

According to available datasets there are records of 27 Priority flora species and five Threatened flora species (as assessed under Principle (c)) within the local area. The applicant has amended the application area from 500 hectares to 2737 trees and has specified that only two species of tree will be cleared, being *Eucalyptus tottiana* and *Nuytsia floribunda*. These species are not recognised as priority or threatened, and the proposed clearing will not impact on any Priority or Threatened species.

As assessed under Principle (b), given that the application area has been amended to exclude *Banksia* woodland in a very good (Keighery, 1994) condition (DER, 2016), the proposed clearing is not likely to impact on significant habitat for Carnaby's cockatoo. The application area is not likely to provide significant habitat for any other fauna species and provide limited fauna linkage values across the landscape.

The proposed clearing has the potential to spread dieback into adjacent areas of higher quality remnant vegetation. Dieback management measures will assist in mitigating this risk.

Given the above, the proposed clearing is not likely to impact on any TEC's, PEC's, rare flora, priority flora or significant habitat for fauna and is not likely to be at variance to this Principle.

#### Methodology

References:  
CSLC (2016)  
DER (2016)  
Keighery (1994)  
Threatened Species Scientific Committee (2016)

GIS Databases:  
SAC Bio Datasets (Accessed March 2017)

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

There are records of five Threatened or Priority fauna species within the local area, these being, Carnaby's cockatoo, fork-tailed swift (*Apus pacificus*), rainbow bee-eater (*Merops ornatus*), woma python (*Aspidites ramsayi*) and carpet python (*Morelia spilota* subsp. *imbricata*). The application area is also within the known range of the malleefowl (*Leipoa ocellata*) which has been recorded within 30 kilometres of the application area (Parks and Wildlife, 2007- ).

The fork-tailed swift and rainbow bee-eater (both protected under International Agreement) are highly mobile avian species with large home ranges and the application area is unlikely to comprise significant habitat for these species.

The woma python and south west carpet python (both Specially Protected under the *Wildlife Conservation Act 1950* (WC Act)) both have singular records with the local area taken in 1966 and 1964 respectively (Parks and Wildlife, 2007- ). Given the length of time since these species were last recorded, and the exclusion of any clearing associated with native understorey, the proposed clearing is not likely to impact on significant habitat for these species.

Carnaby's cockatoo are classified as Threatened (rare or likely to become extinct) under the WC Act. This species forages on the seeds, nuts and flowers of a large variety of plants including proteaceous species (*Banksia*, *Hakea*, *Grevillea*), as well as *Allocasuarina* and *Eucalyptus* species, *Corymbia calophylla* and a range of introduced species (Valentine and Stock, 2008).

Parks and Wildlife advised that "...eucalypts and banksias are known or likely foraging plants for Carnaby's cockatoo...Additionally cockatoos are known to opportunistically forage on any vegetation and isolated trees that they fly over" (Parks and Wildlife, 2016b).

The applicant has amended the application area to exclude significant foraging habitat for Carnaby's cockatoo, including approximately 85.9 hectares of largely *Banksia* woodland in a very good (Keighery, 1994) condition, as well as numerous, largely scattered *Eucalyptus tottiana* trees within a larger area of approximately 150 hectares. While the *Eucalyptus tottiana* trees within the application area provide suitable foraging habitat for Carnaby's cockatoo, the surrounding *Eucalyptus tottiana* trees and *Banksia* woodland vegetation in a better condition will be retained within Lot 10318. Furthermore, there are several areas of high quality remnant vegetation nearby, including Boothendarra Nature Reserve (located 750 metres north east, comprises 2403.4 hectares), a Parks and Wildlife managed reserve (located 2.1 kilometres east, comprises 1800 hectares), an un-named nature reserve (located 5.5 kilometres north east, comprises 136 hectares), Watheroo National Parks (located 12.4 kilometres east, comprises 44,480 hectares) and Badgingarra National Park (located 15.5 kilometres south west, comprises 13,110 hectares). Therefore, the application area is considered unlikely to provide significant foraging habitat for Carnaby's cockatoo.

Carnaby's cockatoo 'Breeding habitat' 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 (Department of Environment Conservation, 2010). There were no trees with significant hollows identified during a site inspection (DER, 2016) and the proposed clearing is not likely to impact on breeding habitat for Carnaby's cockatoo.

The malleefowl occurs in shrublands and low woodlands that are dominated by mallee vegetation (Department of the Environment and Energy, 2015). The trees proposed for clearing are not likely to provide significant habitat for this species.

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

Methodology

References:  
Commonwealth of Australia (2012)  
Department of Environment Conservation (2010)  
DER (2016)  
Department of the Environment and Energy (2015)  
Keighery (1994)  
Parks and Wildlife (2007-)  
Parks and Wildlife (2016b)  
Valentine and Stock (2008)

**(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**

According to available datasets there are records of five Threatened flora species within the local area. Parks and Wildlife advised that two of these species "have known populations located within highly cleared farming land and so still have the potential to occur within areas of degraded or completely degraded vegetation ..." (Parks and Wildlife, 2016a).

To reduce the risk of impacting on the abovementioned Threatened flora species, the applicant has amended the application to limit the proposed clearing to two types of tree, being *Eucalyptus tottiana* and *Nuytsia floribunda*, which will be a requirement imposed on the clearing permit. These trees are not recognised as Threatened species and given that they are located within an area that has been previously parkland cleared and is in a completely degraded (Keighery, 1994) condition (DER, 2016), the proposed clearing is not likely to impact on any Threatened flora species.

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

**Methodology**    References:  
CSLC (2016)  
DER (2016)  
Keighery (1994)  
Parks and Wildlife (2016a)  
GIS Databases:  
SAC Bio Datasets (Accessed March 2017)

**(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**  
According to available datasets, there are no TEC's mapped within the local area.

The application area is within close proximity (approximately nine kilometres) to areas mapped as 'likely to occur' for the *Banksia* Woodlands of the Swan Coastal Plain, which is federally listed as Endangered under the *Environmental Protection and Biodiversity Conservation Act 1999* (Threatened Species Scientific Committee, 2016).

The canopy of the ecological community is most commonly dominated or co-dominated by *Banksia attenuata* and/or *Banksia menziesii*. Other *Banksia* species that may dominate include *Banksia prionotes* or *Banksia ilicifolia* (Threatened Species Scientific Committee, 2016).

The vegetation within the application area is not consistent with the description of this ecological community (DER, 2016) and the proposed clearing is not likely to impact on this community.

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

**Methodology**    References:  
DER (2016)  
Threatened Species Scientific Committee (2016)  
  
GIS Databases:  
SAC Bio Datasets (Accessed March 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).

The Geraldton Sandplains Interim Biogeographic Regionalisation for Australia (IBRA) Bioregion, Shire of Dandaragan and mapped Beard vegetation association (1031) within the Bioregion retain approximately 45, 44 and 34 per cent of their pre-European vegetation extents respectively (Government of Western Australia, 2015).

While the above mentioned vegetation extents all retain greater than the 30 per cent threshold, the local area retains approximately 26.7 per cent native vegetation (13,410 hectares). The 2737 trees within the application area represent approximately 0.2 per cent of the remaining native vegetation within the local area and the proposed clearing would reduce the extent of native vegetation within the local area to 26.5 per cent (13,282 hectares).

While the above mentioned vegetation extents all retain greater than the 30 per cent threshold, given that the local area retains approximately 26.7 per cent native vegetation, it is considered to be extensively cleared.

While the local area has been extensively cleared, the revised application comprises scattered trees located in a completely degraded (Keighery, 1994) area, which is not considered to provide ecological linkage values or contain conservation significant flora or significant habitat for fauna. Therefore it is unlikely that the application area is a significant remnant.

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>                            |                   |                     |               |  |
| Geraldton Sandplains                              | 3,136,038         | 1,404,373           | 45            | 40   |
| <b>Local government authority*</b>                |                   |                     |               |  |
| Dandaragan, Shire of                              | 671,022           | 296,632             | 44            | 42   |
| <b>Beard Vegetation Association in Bioregion*</b> |                   |                     |               |  |
| 1031  | 241,350           | 83,155              | 34            | 44   |

**Methodology** References:  
Commonwealth of Australia (2001)  
Government of Western Australia (2015)  
Keighery (1994)  
GIS Databases:  
NLWRA, Current Extent of Native Vegetation

**(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**  
The closest watercourse to the application area is a tributary that feeds into Boothendarra Creek, located approximately 1.7 kilometres north of the nearest tree proposed for clearing.  
The application area is not considered to contain riparian vegetation (DER, 2016) and the proposed clearing is not likely to be at variance to this Principle.

**Methodology** References:  
DER (2016)  
GIS Databases:  
Hydrography, linear  
Hydrography, hierarchy

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

**Comments** **Proposed clearing may be at variance to this Principle**  
The CSLC advised that unpublished Department of Agriculture and Food Western Australia (DAFWA) soil landscape mapping indicates that four map units occur over the application area. These are Coalara 6 Valley slope, map unit 222 Co\_6a; Coalara 5 plain phase, map unit 222 Co\_5a; Coalara 3 crests phase, map unit 222 Co\_3a and minor areas of Coalara 7 subsystem, map unit 222 Co\_7. The soils of these map units largely comprise of pale and yellow deep sands and gravelly deep sands (CSLC, 2016).  
DAFWA undertook a site inspection and provided a Land Degradation Assessment Report for the initial 500 hectare area of proposed clearing. Based on this report, the CSLC advised that "the risk of land degradation in the forms [of] wind erosion and eutrophication is very high and high respectively. The very high wind erosion risk is associated with the clearing of protective native vegetation and possibly with the subsequent land use if best practice management is not applied" (CSLC, 2016).  
The high risk of eutrophication was associated with soil landscape unit Coalara 1 subsystem, map unit 222Co\_1. The applicant has amended the application area and excluded this map unit, therefore the proposed clearing is not likely to result in eutrophication.  
The reduction in the extent of clearing from 500 hectares of native vegetation to 2737 trees will help to minimise the risk of wind erosion. The applicant will also be required to sow pasture over cleared areas within three months of clearing. This will help to limit the exposure of bare sandy soils and rapidly stabilise soils to prevent wind erosion post clearing.  
Given the above, the proposed clearing may be at variance to this Principle.

**Methodology** References:  
CSLC (2016)

**(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.**

**Comments** **Proposed clearing is not likely to be at variance to this Principle**  
The closest conservation area to the application area is Boothendarra Nature Reserve located approximately 750 metres north east at its closest point. There is a Parks and Wildlife managed reserve approximately 2.1 kilometres east and an un-named nature reserve approximately 5.5 kilometres north east of the application area. Given the distance to these conservation areas, the proposed clearing is not likely to directly impact on these areas.



The application area is comprised of scattered trees and is completely degraded (Keighery, 1994) as it has been previously parkland cleared (DER, 2016), therefore the trees provide limited linkage values between Boothendarra Nature reserve and other conservation areas and remnants of native vegetation.

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

**Methodology**   References:  
DER (2016)

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**  
Groundwater salinity within Lot 10318 is mapped at between 500 and 1000 milligrams per litre total dissolved solids, which is considered marginal.

A Land Degradation Assessment undertaken by DAFWA identified that there is no evidence of salinity occurring on the property and the risk of salinity causing land degradation is low (CSLC, 2016).

The Department of Water (DoW) provided advice for the initial application of 500 hectares, advising that the proposed clearing of portions of the eastern boundary and western boundary may potentially impact upon local water resources and may exacerbate groundwater and dryland salinity issues of these middle catchment areas (DoW, 2016)

The applicant has amended the application area to exclude the higher risk salinity areas identified by DoW and it is considered unlikely that the proposed clearing of 2737 trees will impact on local water resources or exacerbate groundwater and dryland salinity.

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

**Methodology**   References:  
CSLC (2016)  
DoW (2016)

**(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**  
A land degradation assessment undertaken by DAFWA identified that the proposed clearing is unlikely to significantly increase surface water runoff, and as such the risk of flooding causing land degradation is low (CSLC, 2016).

Given the moderate mean annual rainfall experienced in the Region (600 millimetres), and distance to the nearest watercourse (approximately 750 metres) it is considered unlikely that the proposed clearing will cause or exacerbate the incidence of flooding.

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

**Methodology**   References:  
CSLC (2016)

GIS Databases:  
Hydrography, Linear  
Rainfall, Mean Annual

**Planning instruments and other relevant matters.**

**Comments**    The application was advertised in *The West Australian* newspaper on 5 September 2016 by DER inviting submissions from the public within a 21 day period.

One public submission was received in relation to this application. The submission advised that:

- The remnant trees proposed for clearing are likely to provide habitat for Carnaby's cockatoo and the proposed clearing is at variance to Principle (b);
- It is expected that those areas that have not been subject to substantial disturbance would contain a high level of biodiversity and are at variance to Principle (a);
- The northern Wheatbelt has been substantially cleared and all of the remaining native vegetation in the area should be regarded as significant, with the proposed clearing at variance to Principle (e);
- The existence of watercourses in the application areas suggests that the proposed clearing may be at variance to Principle (f); and
- The application area extends the range of Boothendarra Nature Reserve by providing additional habitat beyond its boundaries and therefore is at variance to Principle (h) Submission (2016).

The issues raised in the above submission have been addressed under the relevant clearing Principles.

The applicant has amended the application area from 500 hectares to 2737 trees, excluding vegetation in a very good (Keighery, 1994) condition and excluding vegetation growing in association with a watercourse. The amendment has reduced the impact to significant fauna habitat and Boothendarra Nature reserve, while minimising the potential to impact on rare and priority flora species.

The Shire of Dandaragan advised that it has no comments or objections to the clearing permit application (Shire of Dandaragan, 2016).

DoW advised that "Lot 10318 is located within the Hill River and Tributaries Surface Water Area, proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act)". DoW concluded that "there is no proposed taking of surface water and the portions of proposed clearing supported by DoW will not interfere with the bed and banks of any defined watercourse. Therefore there are no RIWI [Act] permit requirements for the proposed clearing" (DoW, 2016).

**Methodology**    References:  
DoW (2016)  
Keighery (1994)  
Shire of Dandaragan (2016)  
Submission (2016)

#### 4. References

- Commissioner of Soil and Land Conservation (CSLC) (2016); Land Degradation Advice and Assessment Report for Clearing Permit Application CPS 7218/1, 21 October 2016. Department of Agriculture and Food Western Australia (DER Ref A1186241).
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Commonwealth of Australia (2012) EPBC Act referral guidelines for three threatened black cockatoo species, Canberra.
- Department of Environment Regulation (DER) (2016) Site Inspection Report for Clearing Permit Application CPS 7218/1. Site inspection undertaken 6 September 2016. Department of Environment Regulation, Western Australia (DER Ref A1136406).
- Department of Environment Conservation (DEC) (2010) Artificial Hollows for Carnaby's Black Cockatoo. An Investigation of the Placement, Use, Monitoring and Maintenance Requirements of Artificial Hollows for Carnaby's Black Cockatoo. Department of Environment Conservation, Western Australia.
- Department of the Environment and Energy (DotEE) (2015) 'Leipoa ocellata' in Species Profile and Threats Database, Department of the Environment and Energy, Canberra.
- Department of Parks and Wildlife (Parks and Wildlife) (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>. Accessed December 2016.
- Department of Parks and Wildlife (Parks and Wildlife) (2016a) Species and Communities Flora Advice for Clearing Permit Application CPS 7218/1. Department of Parks and Wildlife, Western Australia (DER Ref A1187395).
- Department of Parks and Wildlife (Parks and Wildlife) (2016b) Species and Communities Fauna Advice for Clearing Permit Application CPS 7218/1. Department of Parks and Wildlife, Western Australia (DER Ref A1187364).
- Department of Water (DoW) (2016) Direct Interest Response to Clearing Permit Application CPS 7218/1, 12 October 2016. Department of Water, Western Australia (DER Ref A1178173)
- Government of Western Australia (2015). 2015 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2015. WA Department of Parks and Wildlife, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Shire of Dandaragan (2016) Direct Interest Response to Clearing Permit Application CPS 7218/1, 21 September 2016. DER Ref A1167739.
- Submission (2016) Public Submission Received for Clearing Permit Application CPS 7218/1 (DER Ref A1170253).
- Threatened Species Scientific Committee (2016). Approved Conservation Advice (incorporating listing advice) for the Banksia Woodlands of the Swan Coastal Plain Ecological Community. Canberra: Department of the Environment and Energy. Available from: <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/131-conservation-advice.pdf>.
- Valentine, L.E. and Stock, W. (2008) Food Resources of Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) in the Gngangara Sustainability Strategy Study Area. Edith Cowan University and Department of Environment and Conservation. December 2008.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. <http://florabase.dpaw.wa.gov.au/> (Accessed March 2017).