



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 7682/1  
Permit type: Area Permit

### 1.2. Applicant details

Applicant's name: Mr Grant Douglas Creagh  
Application received date: 05 July 2017

### 1.3. Property details

Property: Lot 3805 on Deposited Plan 209083, Badgingarra  
Local Government Authority: Dandaragan, Shire of  
Localities: Dandaragan

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose category:
8.2	0	Mechanical Removal	Cropping, pasture and fencing

### 1.5. Decision on application

Decision on Permit Application: Refused  
Decision Date: 19 January 2018  
Reasons for Decision: The clearing permit application has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986* (EP Act). It has been concluded that the proposed clearing is at variance to principles (b) and (e), may be at variance to principle (a), (c) and (g) and is not likely to be at variance to the remaining principles.

#### Decision to refuse the application:

The Delegated Officer determined that the application area contains significant foraging habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*) and may support rare and priority flora species.

On 13 October 2017, a Delegated Officer of the Department of Water and Environmental Regulation (DWER) wrote to the applicant, outlining the abovementioned environmental impacts and advised that, in order to address potential impacts to rare and priority flora, a targeted flora survey by a suitably qualified botanist would be required. The Delegated Officer noted the vegetation had recently been burnt and that a targeted flora survey cannot be conducted until native vegetation has regenerated. The Delegated Officer provided the applicant 30 days written notice of the intent to refuse to grant a clearing permit. The applicant again confirmed this position during a phone conversation on 19 December 2017.

In making the decision to refuse to grant the clearing permit, the Delegated Officer had regard to the environmental values of the native vegetation outlined under principles (a) to (j), and planning instruments and other relevant matters outlined in this report, in making the decision on this application.

## 2. Site Information

Clearing Description	The applicant proposes to clear 8.2 hectares of native vegetation within Lot 3805 on Deposited Plan 209083, Dandaragan, for the purpose of cropping, pasture and fencing. (Figure 1).
Vegetation Description	One Beard vegetation association has been mapped within the application area. Beard vegetation association 1031 is described as a mosaic of shrublands; <i>Hakea</i> scrub-heath / shrublands; <i>Banksia</i> heath (Shepherd et al. 2001).
Vegetation Condition	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994);  To:  Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).

**Comment**

The vegetation description and condition was determined from a site visit conducted by Department of Water and Environmental Regulation (DWER) officers on 31 August 2017 (DWER, 2017).

The applicant advised that a fire in April 2017 within the application area was to reduce fuel loads, prior to submitting the clearing permit application (DWER, 2017). Where a disturbance event has occurred, consideration is given to the vegetation's regenerative capacity and environmental values of the site which have the ability to return with time without intervention.

The Department of Biodiversity, Conservation and Attractions (DBCA) advised that the vegetation within the application area will regenerate to a good to very good (Keighery, 1994) condition within a minimum of seven to eight years (DBCA, 2017). Furthermore, the application area was originally applied for in 2010 (CPS 3899/1), prior to being burnt, and was subject to a site inspection, which identified the vegetation as good to very good (Keighery, 1994) condition (DEC, 2010).

The application area was observed during the site inspection to have the capacity to return to the pre-fire condition. As such, good to very good condition vegetation has been referenced throughout this report.

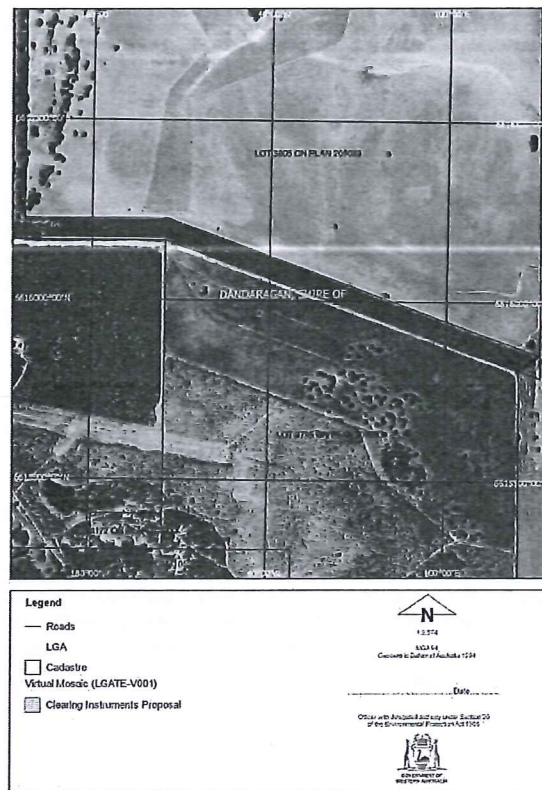


Figure 1: Application area

**3. Assessment of application against clearing principles**

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

**Proposed clearing may be at variance to this Principle**

In April 2017, the application area was burnt to reduce fuel loads (DWER, 2017). Vegetation communities have the ability to regenerate following natural disturbance events such as fire and with time the environmental values of the application area are likely to return. At the time of the site inspection on 31 August 2017, native species were observed to be regenerating within the application area (DWER, 2017). DBCA advised that the vegetation is expected to regenerate to a good to very good (Keighery, 1994) condition after a minimum of seven to eight years (DBCA, 2017). Therefore, taking into consideration the site's ability to regenerate, the following assessment is based on its pre-fire condition.

The site inspection conducted for CPS 3899/1 in 2010 found that the application area consisted of shrubland over heath in a good to very good (Keighery, 1994) condition (DEC, 2010).

As discussed in Principle (e), the local area (defined as a 10 kilometre radius of the application area; 34,505 hectares total) is extensively cleared, with 10.7 per cent of pre-European vegetation remaining.

No threatened ecological communities (TEC) or priority ecological communities (PEC) have been recorded in the local area. The vegetation within the application area is not likely to be representative of a PEC or TEC.

According to available databases, five rare and 30 priority flora species have been recorded in the local area. The application area may provide suitable habitat for the five rare and 23 of the 30 priority flora species recorded in the local area (Western Australian Herbarium, 1998-). *Anigozanthos* sp. was recorded within the application area during the 2017 site inspection, which may be representative of *Anigozanthos humilis* subsp. Badgingarra (S.D. Hopper 7114) (priority 2) (DWER, 2017).

DBCA advised that the potential impacts on the conservation of rare and priority flora if they occur within the application area cannot be determined without a flora survey (DBCA, 2017). Potential impacts to rare flora are discussed further under principle (c) below.

As discussed in Principle (b), four species specially protected under the *Wildlife Conservation Act 1950* (WC Act) and one priority 4 fauna species have been recorded in the local area (DBCA, 2007-). Of these, the application area is most likely to be used by Carnaby's cockatoo (*Calyptorhynchus latirostris*), listed as endangered under the WC Act. As discussed in Principle (b), the application area will provide significant foraging habitat for this species after post-fire regeneration.

Given the likelihood that vegetation will regenerate to a good to very good (Keighery, 1994) condition, the presence of significant foraging habitat for Carnaby's cockatoo, the potential for rare and priority flora to occur and the extensively cleared local area, the application area is considered to comprise a high level of biological diversity in the context of the local area.

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

A targeted flora survey would be required to confirm impacts to rare and priority flora. DBCA advised that if rare or priority flora were present within the application area prior to the fire, they are likely to regenerate with other native vegetation in this area following a minimum of seven to eight years (DBCA, 2017). A flora survey prior to this time is unlikely to be adequate to determine the presence or absence of conservation significant flora within the application area.

**(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.**

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

During the site inspection of CPS 3899/1 in 2010, signs of fauna via scats and runnels and habitat features including tree hollows and foraging habitat were observed (DEC, 2010). As discussed in Principle (a), the vegetation within the application area was burnt in April 2017, but is expected to regenerate to a similar condition to that present prior to the burn. The application area is likely to provide the same fauna habitat values following regeneration to those observed during the 2010 site inspection.

According to available databases, four species listed as specially protected under the WC Act and one priority 4 fauna species have been recorded in the local area, as follows (DBCA, 2007-):

- Carnaby's cockatoo (listed as endangered under the WC Act);
- Rainbow bee-eater (*Merops ornatus*; listed as protected under international agreement under the WC Act);
- Eastern great egret (*Ardea modesta*; listed as protected under international agreement under the WC Act)
- Peregrine falcon (*Falco peregrinus*; listed as other specially protected fauna under the WC Act); and
- Blue-billed duck (*Oxyura australis*; priority 4).

Of these species, the application area is most likely to be used by Carnaby's cockatoo. Carnaby's cockatoo forages on the seeds, nuts and flowers of a large variety of plants including proteaceous species (*Banksia* sp., *Hakea* sp., *Grevillea* sp.), as well as *Allocasuarina* and *Eucalyptus* species, marri, and a range of introduced species (Valentine and Stock, 2008). The application area contains *Hakea* spp., *Banksia* spp., *Grevillea* spp. and *Allocasuarina* spp., which provide suitable foraging habitat for Carnaby's cockatoo (DEC, 2010).

Given DBCA's advice, Carnaby's cockatoo foraging habitat within the application area is likely to regenerate (DBCA, 2017).

The recovery plan for Carnaby's cockatoo defines breeding habitat as including nesting sites, and the foraging habitat and water sources within foraging distance of nesting sites (Department of Parks and Wildlife [Parks and Wildlife], 2013). These areas are considered to be habitat critical to the survival for Carnaby's cockatoo (Parks and Wildlife, 2013). The loss or degradation of feeding habitat within 12 kilometres of nesting sites is considered to pose the greatest risk to Carnaby's cockatoo (Saunders and Ingram, 1998; Parks and Wildlife, 2013). The application area is within four kilometres of a known nesting site, and is therefore 'breeding habitat' and considered to represent significant foraging habitat for Carnaby's cockatoo.

Given the presence of significant foraging habitat for Carnaby's cockatoo, the proposed clearing is at variance to this Principle.

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

**Proposed clearing may be at variance to this Principle**

There are five rare flora species recorded in the local area (10 kilometre radius). All of these species are known to occur within the same vegetation type (Beard vegetation complex 1031; shrublands; hakea scrub-heath / shrublands; *Banksia* heath) and in similar soil types as the application area.

The first rare flora species is a mallee or tree that grows from 2.3 to 10 metres in height on lateritic sand (Western Australian Herbarium, 1998-). This species is known from nine records in Western Australia, with only one of these occurring on conservation tenure and all restricted to the Shire of Dandaragan. The proposed clearing may have a significant impact on this species if it occurs within the application area.



The second rare flora species is also known from nine records in Western Australia, and is restricted to an area of 8.5 kilometres in a north to south direction, with the nearest record approximately 9.2 kilometres south of the application area. This species flowers in April, June or August, and occurs on grey or yellow sand over laterite, with gravel (Western Australian Herbarium, 1998-). Given its restricted distribution and number of known records, the proposed clearing may have a significant impact on this species if it occurs within the application area.

The third rare flora species is known from 27 records across the Shires of Three Springs, Carnamah, Coorow and Dandaragan. This species flowers from May to June and occurs on grey sand and loam, on laterite hills and rocks (Western Australian Herbarium, 1998-). Only seven records of this species occur in the Shire of Dandaragan, and the proposed clearing may have a significant local impact on this species if it occurs within the application area.

The fourth rare flora species is known from 17 records in the Shires of Coorow and Dandaragan. This species flowers in November to September, and is found in lateritic hills and slopes, with laterite and clay loams in either heath or marri and wandoo woodland (Western Australian Herbarium, 1998-). Given its restricted distribution and number of known records, the proposed clearing may have a significant impact on this species if it occurs within the application area.

The fifth rare flora species is known from three records, all of which are within 7.5 kilometres of the application area. This species flowers in May and occurs on a range of soil types including white sand over clay pale brown loam, cracked brown soil, gravel, laterite and ironstone (Western Australian Herbarium, 1998-). Given its restricted distribution and number of known records, the proposed clearing may have a significant impact on this species if it occurs within the application area.

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

A targeted flora survey would be required to determine the presence or absence of rare flora within the application area. DBCA advised that if rare flora were present within the application area prior to the fire, they are likely to regenerate with other native vegetation in this area following a minimum of seven to eight years. The flora survey is to be undertaken once the vegetation has regenerated to its pre-fire levels to determine the presence and significance of rare flora (DBCA, 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.**

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

As discussed in Principle (a), no TECs have been recorded in the local area. The vegetation within the application area is not likely to be representative of a TEC listed under the *Environment Protection and Biodiversity Conservation Act 1999* or endorsed by the Western Australian Minister for Environment.

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

**(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.**

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

The application area is located within the Geraldton Sandplains Interim Biogeographic Regionalisation of Australia (IBRA) bioregion, in which approximately 45 per cent of the pre-European vegetation remains (Government of Western Australia, 2016).

The local area (10 kilometre radius; 34,505 hectares) has 3,706 hectares (10.7 per cent) of pre-European vegetation remaining. Noting that larger remnants exist in the local area, the majority of remnants are less than 10 hectares in size. The application area represents a stepping stone that is considered to facilitate landscape connectivity and contribute to fauna dispersal between larger isolated bushland fragments in an extensively cleared landscape. The proposed clearing is likely to increase fragmentation and further isolate fauna and flora species, and decrease landscape connectivity. Given this information, the local area is considered to be extensively cleared and fragmented.

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 Beard vegetation association 1031, is only just above the 30 per cent threshold, this vegetation association is at risk of falling below this level.

The vegetation within the application area has been recently burnt (DWER, 2017). The application area was previously applied to clear in 2010, and a site inspection found vegetation to be in good to very good (Keighery, 1994) condition (DEC, 2010). The DBCA Region advised that the vegetation type within the application area is likely to regenerate to a similar vegetation condition in approximately seven to eight years (DBCA, 2017).

As discussed in Principles (a), (b) and (c), the application area may contain rare and priority flora, and contains significant foraging habitat for Carnaby's cockatoo.

Given the extensively cleared local area, presence of vegetation in good to very good (Keighery, 1994) condition that provides significant foraging habitat for Carnaby's cockatoo and potential habitat for rare and priority flora, it is considered that the application area is significant as a remnant of native vegetation in an area that has been extensively cleared.

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

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DBCA Managed Lands (%)
<b>IBRA Bioregion*</b>				
Geraldton Sandplains	3,136,038	1,404,373	45	40
<b>Local government*</b>				
Shire of Dandaragan	671,022	296,632	44	43
<b>Beard vegetation association in Bioregion*</b>				
1031	241,350	83,155	34	44

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

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

According to available databases, there are no watercourses or wetlands within the application area. No watercourses or wetlands were observed during the site inspection (DWER, 2017).

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

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

**Proposed clearing may be at variance to this Principle**

The soil type within the application area is mapped as 'Boothendarra 4 subsystem' (Department of Primary Industries and Resource Development [DPIRD], 2017). This soil type is described as very gently inclined hillslopes and foot slopes on colluvium, with sandy duplexes with deep sands and sandy gravels (DPIRD, 2017).

The Deputy Commissioner of Soil and Land Conservation (Deputy Commissioner) arranged a site inspection which was conducted by the Department of Primary Industries and Regional Development (DPIRD) on 1 August 2017. DPIRD provided a land degradation report based on the results of the inspection (DPIRD, 2017).

The Deputy Commissioner advised that the vegetation type within the application area is undefined as most of the area has been recently burnt. There is some evidence of heath with mallee or *E. tottiana* that is consistent with the land unit description. The land degradation report indicated that there is some risk of water and wind erosion due to the slope of the land and the soil type present. The Deputy Commissioner concluded that the proposed clearing may be at variance with principle (g) for land degradation in the form of wind and water erosion (DPIRD, 2017).

DPIRD further advised that the risk of the proposed clearing causing appreciable land degradation via salinity, eutrophication, waterlogging and flooding is low (DPIRD, 2017).

Given the risk of wind and water erosion, the proposed clearing may be at variance to this Principle.

DPIRD advised that the risk of wind and water erosion would be minimised by implementing management practices that ensure a suitable vegetative cover is maintained at all times (DPIRD, 2017).

**(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.**

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

The Minyulo Nature Reserve is located 6.3 kilometres south of the application area, and is the only conservation area within the local area.

As discussed in Principle (e), the local area has been extensively cleared, and any remaining vegetation may be important in maintaining flora and fauna dispersal across the landscape. However, the proposed clearing will not sever an ecological linkage, and is not part of a linkage between Minyulo Nature Reserve and other remnants of native vegetation.

Given the above, the proposed clearing is not likely to impact on the environmental values of the Minyulo Nature Reserve, and is not likely to be at variance to this Principle.

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

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

As discussed in Principle (f), there are no wetlands or watercourses within the application area. The proposed clearing is not likely to impact the quality of surface water.

Groundwater salinity within the application area is mapped as 500 to 1,000 milligrams per litre total dissolved solids. DPIRD advised that the proposed clearing is not likely to cause salinity (DPIRD, 2017).

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



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

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

DPIRD advised that the proposed clearing is not likely to cause flooding within the application area, and is not likely to increase surface runoff (DPIRD, 2017).

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

**Planning instruments and other relevant matters.**

An application to clear the application area was submitted previously on 12 August 2010, by method of burning (Ref CPS 3899/1). The application was refused on 8 April 2011, noting that the application area may contain rare and priority flora, provided significant foraging habitat for Carnaby's cockatoo, and was located within agricultural areas defined in the Environmental Protection Authority's (EPA) Position Statement No. 2. EPA Position Statement No. 2 did not support any further reduction in native vegetation through clearing for agriculture in the area.

Since the decision to refuse CPS 3899/1, EPA Position Statement No. 2 has been repealed.

The clearing permit application was advertised on DWER's website for a 21 day public submission period. One submission was received, raising concerns of clearing native vegetation within a closed road reserve (Submission, 2017). The submission party was advised that the application area is not within a designated road reserve.

DPIRD advised that the application area has a moderate capability for the intended land use (DPIRD, 2017).

The Shire of Dandaragan advised that the property is zoned as 'rural', and that planning approval is not required for the proposed activities (Shire of Dandaragan, 2017).

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

#### **4. Applicant's Submissions**

- On 13 October 2017, a DWER Delegated Officer wrote to the applicant, outlining the abovementioned environmental impacts and advised that in order to address potential impacts to rare and priority flora, a targeted flora survey by a suitably qualified botanist would be required. The Delegated Officer noted the vegetation had recently been burnt and that a targeted flora survey cannot be conducted until native vegetation has regenerated. The Delegated Officer provided the applicant 30 days written notice of the intent to refuse to grant a clearing permit;
- On 17 October 2017, the applicant emailed DWER advising that he would not be undertaking flora surveys for the application area. The applicant also raised concerns of clearing native vegetation for subdivisions and clearing of black cockatoo habitat and other matters that are not relevant to this assessment;
- On 27 October 2017, the applicant emailed DWER raising concerns over the increase in bush fire risk, given the number of weeds germinating post fire. The applicant also advised that he will be clearing to install firebreaks and fencelines; and
- On 30 October 2017, a DWER Delegated Officer emailed the applicant to advise that the comments will be considered prior to making a determination on the clearing permit application.
- On 19 December 2017, a DWER Delegated Officer contacted the applicant by phone to again explain that without flora survey reports, the application was likely to be refused. The Delegated Officer noted that as the application area had been burnt, flora surveys would not be suitable to be conducted at this time. The applicant confirmed that flora surveys would not be provided.

#### **5. References**

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra. Department of Biodiversity, Conservation and Attractions (DBCA) (2007-) Naturemap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife, Perth. <http://naturemap.dpaw.wa.gov.au/default.aspx> (Accessed September 2017).
- Department of Biodiversity, Conservation and Attractions (DBCA) (2017) Regional advice received on 14 September 2017 (DWER REF: A1525298)
- Department of Environment and Conservation (DEC) (2010) Site Inspection Report for Clearing Permit Application CPS 3899/1, Lot 3805 on Deposited Plan 209083, Badgingarra. Site Inspection undertaken 08/2010. Department of Environment and Conservation, Western Australia (DEC REF: A333846).
- Department of Environment and Conservation (DEC) (2011) Invasive Plant Prioritisation, Department of Environment and Conservation, Perth.
- Department of Primary Industries and Regional Development (DPIRD) (2017) Advice received on 12 September 2017 (DWER REF: A1521860).
- Department of Parks and Wildlife (Parks and Wildlife) (2013) Carnaby's cockatoo (*Calyptorhynchus latirostris*) Recovery Plan. Department of Parks and Wildlife, Perth, Western Australia.
- Department of Water and Environmental Regulation (DWER) (2017) CPS 7682/1 site inspection report (DWER REF: A1525698).
- Government of Western Australia (2016). 2016 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2016. WA Department of Parks and Wildlife, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

- 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.
- Shire of Dandaragan (2017) Advice received from the Shire of Dandaragan on 26 July 2017 (DWER REF: A1489916).  
Submission (2017) Submission to CPS 7682/1 received on 7 August 2017 (DWER REF: A1500459).
- Valentine, L.E. and Stock, W. (2008) Food Resources of Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) in the Gnangara 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 September 2017).

