



## CLEARING PERMIT

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

<b>Purpose Permit number:</b>	CPS 7173/1
<b>Permit Holder:</b>	Shire of Westonia
<b>Duration of Permit:</b>	From 8 October 2016 to 8 October 2021

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 road realignment.

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

Carrabin Siding Road reserve (PINs 11712589, 11712588 and 11427073), Carrabin  
Unallocated Crown land (PIN 1053638), Carrabin  
Carrabin South Road reserve (PINs 11427083 and 11712590), Carrabin,

**3. Area of Clearing**

The Permit Holder must not clear more than 2.978 hectares of native vegetation within the area hatched yellow on attached Plan 7173/1.

**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.

**5. Type of clearing authorised**

This Permit authorises the Permit Holder to clear native vegetation for the activities described in condition 1 of this Permit to the extent that the Permit Holder has the power to carry out works involving clearing for those activities under the *Local Government Act 1995* or any other written law.

### PART II – MANAGEMENT CONDITIONS

**6. 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:

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

**7. Dieback and weed control**

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:

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

**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; and

*weed/s* means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in a Department of Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.



Emma Bramwell  
A/ MANAGER  
CLEARING REGULATION

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

8 September 2016

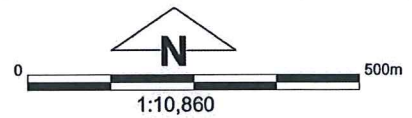


# Plan 7173/1



## Legend

-  Imagery
-  Clearing Instruments Activities
-  Local Government Authority



(Approximate when reproduced at A4)  
GDA 94 (Lat/Long)

Geocentric Datum of Australia 1994

*E. Brannwell* Date *08/04/16*



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## 1. Application details

### 1.1. Permit application details

Permit application No.: 7173/1  
Permit type: Area Permit

### 1.2. Applicant details

Applicant's name: Shire of Westonia

### 1.3. Property details

Property: Carrabin Siding Road reserve (PINs 11712589, 1712588 and 11427073), Carrabin  
Carrabin South Road reserve (PINs 11427083 and 11712590), Carrabin  
Unallocated Crown Land (PIN 1053638), Carrabin  
Carrabin Siding Road and Carrabin South Road  
Colloquial name: Carrabin Siding Road and Carrabin South Road  
Local Government Authority: WESTONIA, SHIRE OF  
DER Region: Greater Swan  
DPaW District: CENTRAL WHEATBELT  
Localities: CARRABIN

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2.978		Mechanical Removal	Road construction or upgrades

### 1.5. Decision on application

Decision on Permit Application: Granted  
Decision Date: 8 September 2016  
Reasons for Decision: The clearing application has been assessed against the clearing principles, planning instruments and other matters in accordance with section 510 of the *Environmental Protection Act 1986*, and it has been concluded that the proposed clearing may be at variance to principles (e) and (h) and is not likely to be at variance to the remaining clearing principles.

The Delegated Officer determined that the application area is located within a highly cleared landscape and has mapped vegetation types that have an extent that falls below the 30 per cent threshold, and that the clearing may impact the environmental values of the Carrabin Nature Reserve through the introduction and spread of weeds and dieback. Consideration was also given to the presence of similar or better condition vegetation within the adjacent Carrabin Nature Reserve and that the applicant has committed to revegetating the closed roads once the proposed road realignment has been completed.

Weed and dieback management measures will minimise impacts to the environmental values of this conservation area.

State policies and other relevant policies have been taken into consideration in this decision.

## 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 36 is described as Shrublands; thicket, <i>Acacia-Casuarina</i> alliance (Shepherd et al., 2001)	The application is to clear 2.978 hectares of native vegetation within Carrabin Siding Road reserve (PINs 11712589, 11712588 and 11427073), unallocated Crown land (PIN 1053638) and Carrabin South Road reserve (PINs 11427083 and 11712590), Carrabin, for the purpose of road realignment.	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 application area was established via aerial imagery and a flora survey undertaken by Shire of Bruce Rock (2014).

### 3. Assessment of application against clearing principles

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

##### Comments

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

The application is to clear 2.978 hectares of native vegetation within Carrabin Siding Road reserve (PINs 11712589, 11712588 and 11427073), unallocated Crown land (PIN 1053638) and Carrabin South Road reserve (PINs 11427083 and 11712590), Carrabin, for the purpose of road realignment. The proposed road construction is a 'Black Spot' funded project.

The vegetation proposed for clearing ranges from a completely degraded to very good (Keighery, 1994) condition. The area under application has been subject to recent disturbances from road maintenance, gridlines and telecommunications and power infrastructure (Shire of Bruce Rock, 2014).

A flora and fauna survey was conducted in September and October 2014 by the Shire of Bruce Rock on behalf of the applicant for an area proposed to be cleared near the Carrabin Bin (Shire of Bruce Rock, 2014).

The flora survey identified that the application area consists of old growth vegetation dominated by *Allocasuarina corniculata*, *Allocasuarina campestris*, *Acacia neurophylla* and *Acacia assimilis* (Shire of Bruce Rock, 2014). Where road maintenance has occurred along the edge of the road reserves, understorey species including *Goodenia*, *Dampiera* and *Glyschrocaryon* are more dominant within the mix of species recorded (Shire of Bruce Rock, 2014).

According to available databases, a total of seven priority flora and four rare flora species have been recorded within the local area (10 kilometre radius). The priority flora species *Banksia shanklandiorum* was recorded in 1998 within the application area. The Department of Parks and Wildlife (Parks and Wildlife) advised that there is no information available on the extent of its population in the area, so it cannot be confirmed whether this population was recorded within or adjacent to the application area (Parks and Wildlife, 2016). The flora survey specifically targeted this species within the application area, however the species was not found (Shire of Bruce Rock, 2014). Parks and Wildlife advised that the flora survey was appropriately timed with sufficient intensity to determine whether this species is present within the application area (Parks and Wildlife, 2016).

Parks and Wildlife advised that the proposed clearing is not likely to impact on rare or priority flora species that have been recorded within the local area (Parks and Wildlife, 2016).

The application area may provide suitable habitat for the malleefowl (*Leipoa ocellata*). However it is considered that the application area is unlikely to constitute significant habitat for this species, given the presence of habitat of a similar or better condition within the adjacent Carrabin Nature Reserve.

According to available databases, there are no threatened ecological communities mapped within the local area (10 kilometre radius).

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

##### Methodology

##### References:

Keighery (1994)  
Parks and Wildlife (2016)  
Shire of Bruce Rock (2014)

##### GIS Databases:

SAC Bio Datasets (Accessed September 2016)  
NLWRA, Current Extent of Native Vegetation

#### (b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

##### Comments

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

A total of three conservation significant fauna have been recorded within the local area (10 kilometres radius) (Parks and Wildlife, 2007-) These species include the malleefowl (*Leipoa ocellata*) listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950* (WC Act), peregrine falcon (*Falco peregrinus*) listed as Schedule 7 (other specially protected fauna) under the WC Act, and the tree-stem trapdoor spider (*Aganippe castellum*) listed as priority 4 by Parks and Wildlife.

The malleefowl mainly occurs in shrublands and low woodlands that are dominated by mallee vegetation (Department of the Environment and Energy, 2016a). The vegetation within the application area consists of old growth vegetation dominated by *Allocasuarina corniculata*, *Allocasuarina campestris*, *Acacia neurophylla* and *Acacia assimilis* (Shire of Bruce Rock, 2014). Given the application area contains shrubland vegetation, it is considered that suitable habitat for this species may occur within the application area. However, given the presence of habitat of similar or a better condition within the adjacent Carrabin Nature Reserve it is considered that the application area is unlikely to provide significant habitat for this species.

The peregrine falcon has a preference for areas with rocky ledges, cliffs, watercourses, open woodlands or margins of cleared land (Department of the Environment and Energy, 2016b). Noting the vegetation type within the application area, and the presence of cleared land in the local area, it is considered that the application area may contain suitable habitat for this species. However noting the mobile nature of this species, it is considered that this species is unlikely to roost exclusively within the application area.

The tree-stem trapdoor spider prefers habitats in flood-prone depressions and flats that support myrtaceous shrub communities (Avon Catchment Council, 2007). Noting the habitat requirements for this species, it is considered that the application area is unlikely to provide suitable habitat for this species.

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

**Methodology**   References:  
Avon Catchment Council (2007)  
Department of the Environment and Energy (2016a)  
Department of the Environment and Energy (2016b)  
Parks and Wildlife (2007-)  
Shire of Bruce Rock (2014)

GIS Databases:  
SAC Bio Datasets (Accessed September 2016)

**(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 databases, four rare flora species have been recorded within the local area (10 kilometre radius). Two rare flora species are mapped approximately 5.4 kilometres (Species A) and 6.6 kilometres (Species B) from the application area, and have been recorded within the same soil type as found within the application area.

The closest rare flora species (Species A) has a preference for clay loam or gravelly sandy clay within disturbed road verges, and flowers in April or between October to November (Western Australian Herbarium, 1998-). Species B grows within yellow sand/loam over laterite within flats or road verges, and flowers from July to October (Western Australian Herbarium, 1998-). Noting the habitat requirements for both species, it is considered that the application area may contain suitable habitat for these species.

No rare flora were recorded during a flora survey undertaken by the Shire of Bruce Rock (Shire of Bruce Rock, 2014). Parks and Wildlife advised that the flora survey was appropriately timed with sufficient intensity to determine that neither species is present within the application area (Parks and Wildlife, 2016).

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

**Methodology**   References:  
Department of Parks and Wildlife (2016)  
Shire of Bruce Rock (2014)  
Western Australian Herbarium (1998-)

GIS Databases:  
SAC Bio Datasets (Accessed September 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**

According to available databases, there are no threatened ecological communities (TECs) mapped within the local area (10 kilometre radius). Noting the condition of the vegetation within the application area, and the type and remaining extent of the vegetation association mapped within the application area, it is considered that the application area is unlikely to comprise the whole, or part of, or be necessary for the maintenance of a TEC.

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

**Methodology**   GIS Databases:  
SAC Bio Datasets (Accessed September 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 may be at variance to this Principle**

The application area is located within the Avon Wheatbelt Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 19 per cent of its pre-European vegetation extent remaining (Government of Western Australia, 2015).

The vegetation within the application area is mapped as Beard vegetation association 36 of which there is approximately 24 per cent of its pre-European extent remaining within the Avon Wheatbelt bioregion (Government of Western Australia, 2015).

The application area is located within the Shire of Westonia, within which there is approximately 39 per cent of pre-European vegetation extent remaining (Government of Western Australia, 2015).

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 local area (10 kilometre radius) retains approximately 20 per cent native vegetation cover. It is considered, therefore, that the application area is located within a highly cleared landscape. However, given the presence of vegetation in a similar or better condition within the adjacent Carrabin Nature Reserve and that no ecological linkages will be severed by the proposed clearing, it is considered that the application area is unlikely to be significant as a remnant.

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

The applicant's commitment to revegetate the redundant roads post-clearing will assist in mitigating the residual impacts to highly cleared vegetation types.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife Managed Lands (%)
<b>IBRA Bioregion*</b>				
Avon Wheatbelt	9,517,110	1,765,881	19	10
<b>Shire*</b>				
Shire of Westonia	331,938	130,985	39	19
<b>Beard Vegetation Association in Bioregion*</b>				
36	300,997	72,785	24	13

**Methodology**

References:  
Commonwealth of Australia (2001)  
\*Government of Western Australia (2015)

GIS Databases:  
Pre-European 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**

According to available databases, there are no watercourses or wetlands mapped within the application area and no riparian vegetation was observed during a flora survey undertaken by the Shire of Bruce Rock (Shire of Bruce Rock, 2014). The closest hydrological feature is a minor non-perennial watercourse mapped 334 metres south of the northernmost clearing area.

Given the distance to this hydrological feature, it is considered that the proposed clearing is unlikely to impact upon riparian vegetation growing in association with this watercourse.

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

**Methodology**

References:  
Shire of Bruce Rock (2014)

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

The soils within the application area have been mapped as Tandegin 1 Subsystem and are described as crestal and upper slope sandplain with weakly expressed, weakly indurated breakaways and colluvial backslopes comprising yellow sands, earths, sand gravels with Tammar and Kwongan heath (Schoknecht et al., 2004).

Given the porous nature of the soil type under application, the relatively flat topography of the subject land, and the low rainfall (400 millimetres per annum), it is considered that the proposed clearing is unlikely to cause land degradation in the form of water erosion.

The majority of the application area is surrounded by remnant vegetation. Given the linear nature of the application area, and that the application area is surrounded by native vegetation, it is considered that the proposed clearing is unlikely to cause appreciable land degradation in the form of wind erosion.

Ground water salinity levels in the local area (10 kilometre radius) have been mapped as highly saline at 14,000-35,000 milligrams per litre total dissolved solids. Given the linear nature of the clearing as proposed and that the applicant's commitment to revegetate the redundant road reserves post-clearing, it is considered that the proposed clearing is unlikely to cause land degradation through salinity.

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

**Methodology**

**References:**

Schoknecht et al. (2004)

**GIS Databases:**

Soils, Statewide

Groundwater salinity

Topographic Contours, Statewide

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

**Comments**

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

According to available databases, the application area adjoins an A Class reserve known as the 'Carrabin Nature Reserve'. Given the close proximity of the application area to the reserve, there is the potential for the proposed clearing to increase the risk of weeds and dieback spreading into this conservation area.

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

Weed and dieback mitigation measures will assist in mitigating the spread of weeds and dieback into the Carrabin Nature Reserve.

**Methodology**

**GIS Databases:**

Parks and Wildlife, Tenure

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

**Comments**

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

The closest watercourse to the application area is a minor non-perennial watercourse located 334 metres south of the northernmost clearing area.

Given the distance to nearest mapped hydrological features, the proposed clearing is not likely to cause deterioration in the quality of surface water.

Groundwater salinity mapped within the application area is between 14,000-35,000 milligrams per litre total dissolved solids (highly saline). Given the linear nature of the application area and taking into account the applicant's commitment to revegetate the redundant road reserves post-clearing, it is considered that the proposed clearing is unlikely to lead to a perceptible rise in the water table and thus an increase in groundwater salinity levels.

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

**Methodology**

**GIS Databases:**

Hydrography, linear

Hydrography, hierarchy



Groundwater salinity

**(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**  
Given there are no watercourses or wetlands within the application area and the porosity of the soil under application, it is considered that the proposed clearing is unlikely to cause or exacerbate the incidence or intensity of flooding.

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

**Methodology**    GIS Databases:  
Hydrography, linear  
Hydrography, hierarchy  
Geomorphic Wetlands, Swan Coastal Plain

**Planning instruments and other relevant matters.**

**Comments**      A flora and fauna survey was conducted in 2014 by the Shire of Bruce Rock on behalf of the applicant for an area proposed to be cleared near the Carrabin Bin (Shire of Bruce Rock, 2014). In its report the Shire of Bruce Rock recommended that the applicant rehabilitate the redundant roads with the topsoil recovered from the application area once it has been cleared, using the following method:

- rip the soils from the old roads deeply to remove the hard pan which will occur beneath it;
- stockpile the topsoil from the clearing area and spread the vegetative material into the existing ripped soil in the rehabilitation areas; and
- stockpile the woody material to cover the spread of vegetative material (Shire of Bruce Rock, 2014).

The applicant advised that the method recommended by the Shire of Bruce Rock will be implemented, and that native trees will be incorporated into the rehabilitation area once the new road realignment has been completed (Shire of Westonia, 2016).

There are no Aboriginal Sites of Significance recorded in the application area.

The application was advertised in *The West Australian* newspaper on 1 August 2016 for a 21 day submission period. No submissions have been received in the relation to this application.

**Methodology**    References:  
Shire of Bruce Rock (2014)  
Shire of Westonia (2016)

GIS Databases:  
Aboriginal Sites of Significance

#### **4. References**

- Avon Catchment Council (2007) Tree-stem Trapdoor Spider (*Aganippe castellum*) Conservation Plan No. ## Avon Catchment Council, Western Australia
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Department of the Environment and Energy (2016a) '*Leipoa ocellata*' in Species Profile and Threats Database, Department of the Environment and Energy, Canberra.
- Department of the Environment and Energy (2016b) The Peregrine Falcon (*Falco peregrinus*). Department of Environment and Energy. Canberra. URL: <https://www.environment.gov.au/resource/peregrine-falcon-falco-peregrinus>. Accessed 07/09/2016
- Department of Parks and Wildlife (Parks and Wildlife) (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed 07/09/2016
- Department of Parks and Wildlife (Parks and Wildlife) (2016) Advice received in relation to clearing permit application CPS 7173/1, received 30 August 2016. Department of Parks and Wildlife, Western Australia (DER Ref: A1159806).
- 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.
- Schoknecht, N., Tille, P. and Purdie, B. (2004) Soil-landscape mapping in South-Western Australia – Overview of Methodology and outputs' Resource Management Technical Report No. 280. Department of Agriculture.
- 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 Bruce Rock (2014) Flora and Fauna survey – Carrabin – for Shire of Westonia between 18.09.14 – 16.10.14. Stephen Fry. Shire of Bruce Rock. Western Australia (DER Ref: A1127976).
- Shire of Westonia (2016) Additional information provided by the applicant for Clearing Permit CPS 7173/1. Western Australia. (DER Ref: A1160467).
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. <http://florabase.dpaw.wa.gov.au/> (Accessed 07/09/2016).