



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

| | |
|-------------------------------|--------------------------------------|
| Purpose Permit number: | CPS 7704/1 |
| Permit Holder: | Shire of Jerramungup |
| Duration of Permit: | 10 February 2018 to 10 February 2023 |

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 widening and upgrades.

2. Land on which clearing is to be done

Jacup Road North road reserve (PIN 11639592), Jacup

3. Area of Clearing

The Permit Holder must not clear more than one hectare of native vegetation within the area cross-hatched yellow on attached Plan 7704/1.

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 and reduce the impacts and extent of 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.

7. 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*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no *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.

PART III – RECORD KEEPING AND REPORTING

8. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit, in relation to the clearing of native vegetation authorised under this Permit:

- (a) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
- (b) the date that the area was cleared;
- (c) the size of the area cleared (in hectares); and
- (d) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 6 of this Permit.

9. Records must be kept

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
 - (i) of records required under condition 8 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June of each year.
- (c) Prior to 10 November 2022 the Permit Holder must provide to the CEO a written report of records required under condition 8 of this Permit where these records have not already been provided under condition 9(a) of this Permit.

DEFINITIONS


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

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;

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 Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking 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

9 January 2018

Plan 7704/1



Legend

-  Roads
-  Imagery
-  Clearing Instruments Activities
-  Local Government Authority



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

Geocentric Datum of Australia 1994

E Bramwell Date *09/01/18*
E Bramwell



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1. Application details

1.1. Permit application details

Permit application No.: 7704/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: Shire of Jerramungup

1.3. Property details

Property: Jacup North Road Reserve (PIN 11639592), Jacup
Local Government Authority: JERRAMUNGUP, SHIRE OF
DWER Region: South Coast
DBCA District: GREAT SOUTHERN
Localities: JACUP

1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|--------------------|-----------|--------------------|---------------------|
| 1 | | Mechanical Removal | Road widening |

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 9 January 2018
Reasons for Decision: The clearing permit application was received on 26 July 2017 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 is at variance to clearing principle (f) and is not likely to be at variance to the remaining clearing principles.

The Delegated Officer noted that the proposed clearing may impact on riparian vegetation growing in association with nearby watercourses, however determined that the proposed clearing is unlikely to have any significant environmental impacts. The Delegated Officer also noted the extent of weeds within the application area and determined that the proposed clearing may increase the risk of weeds being introduced or spread into adjacent areas. Weed management measures will minimise impacts to adjacent areas.

Site Information

Clearing Description: The application is to clear up to one hectare of native vegetation within a six kilometre stretch of Jacup North Road reserve (PIN 11639592), Jacup, for the purpose of road widening / upgrades.

Vegetation Description: The application area is mapped as two Beard vegetation associations:

- 940, described as shrublands; mallee scrub, black marlock / shrublands; tallerack mallee-heath; and
- 1075, described as shrublands; mallee scrub, *Eucalyptus eremophila* and black marlock (*Eucalyptus redunca*) (Shepherd et al, 2001).

A fauna and flora survey and vegetation assessment provided by the applicant (applicant's survey) identified five vegetation types within the application area:

- fragmented mallee habitat systems with minimal weed incursions;
- shrubland vegetation communities with minimal canopy vegetation with extensive weed incursions;
- samphire and *Melaleuca* species and invasive weed species including African love grass, winter grasses and cape weed (creek area);
- mallee over shrublands (north of the creek system); and
- thickets of *Eucalyptus* spp. over shrublands of *Melaleuca* spp. (north of creek system) (Elson, 2016).

Vegetation Condition: Good; Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).
To
Completely Degraded; No longer intact, completely/almost completely without native species (Keighery, 1994).

The majority of the vegetation within the application area is in a degraded (Keighery 1994) condition. Photographs in the applicant's survey indicate that the understorey contains a high concentration of weed invasion (Elson, 2016).

Soil and Landform Type:

The application area is mapped within four land subsystems:

- Jerramungup 1 Subsystem (Map Unit 243Jm_1), described as level to only very gently inclined, often poorly drained, plain zero to three per cent gradient and less than nine metre relief (mapped over approximately 40 per cent of the application area);
- Jerramungup 2 Subsystem (Map Unit 243Jm2), described as gently undulating to undulating dissected plain with hill slopes and hill crests with a one to five per cent gradient and a 10-30 metre relief (mapped over approximately 45 per cent of the application area);
- Jerramungup 6 Subsystem (Map Unit 243Jm_6), described as areas of significant rock outcrop including monadnocks and sheet rock benches (mapped over approximately eight per cent of the application area); and
- Upper Fitzgerald 5 Subsystem (Map Unit 243Uf_5), described as head water rises with long, moderately inclined slopes; shallow gravelly and sand duplex soils and hard-setting, non-cracking clays (mapped over approximately seven per cent of the application area) (Schoknecht et al., 2004).

Comment:

The local area referred to in this assessment is defined as the area within a 10 kilometre radius of the application area. Aerial imagery indicates that the local area retains approximately 16 per cent native vegetation cover.

Figure 1: Map of application area

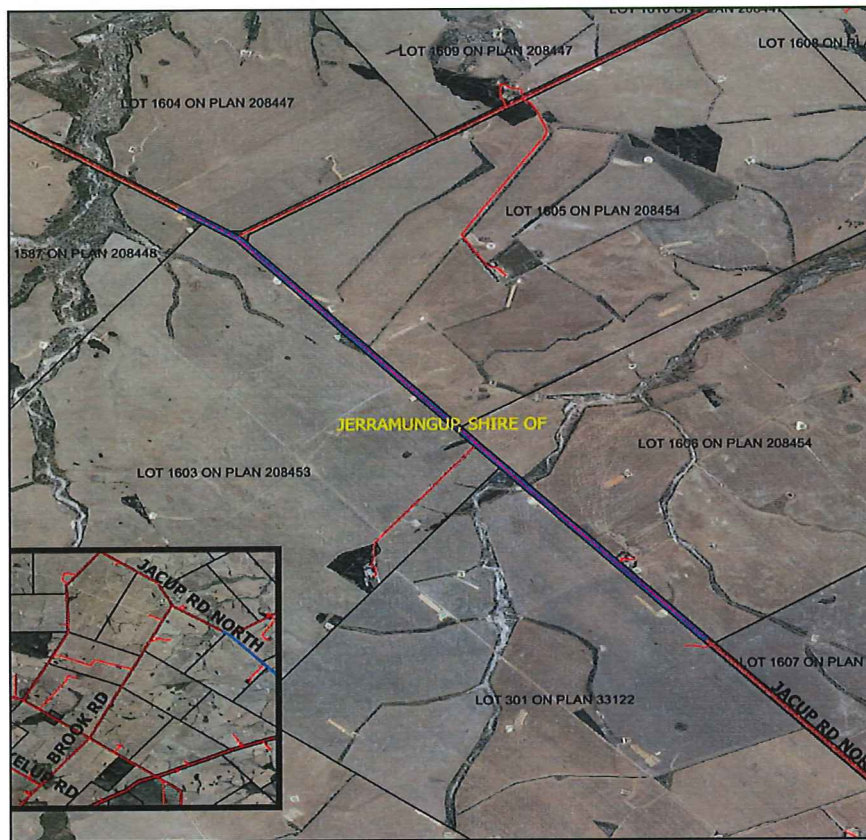


Figure 2: Photographs of vegetation within the application area



Photo 1: Extent of weeds present in the vicinity of a watercourse traversing the Jacup Road reserve.



Photo 2: Extent of weeds present in the proposed clearing footprint within the Jacup Road reserve.

2. Assessment of application against clearing principles

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

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

The application is to clear up to one hectare of native vegetation within a linear footprint of approximately six kilometres in length, up to one metre from the existing back slope on both sides of the road.

As discussed in Section 2, the vegetation within the application area comprises shrublands and mallee, the majority of which is in a degraded (Keighery, 1994) condition.

According to available databases and the applicant's survey, the malleefowl (*Leipoa ocellata*), rainbow bee-eater (*Merops ornatus*), and western whipbird (western mallee) (*Psophodes nigrogularis* subsp. *oberon*), may utilise the application area as foraging and breeding habitat. Fauna habitat and conservation significant fauna species are discussed under Principle (b).

According to available databases and advice received from the Department of Biodiversity, Conservation and Attractions (DBCA), 16 priority flora species and two rare flora species have been recorded within the local area. Of these, three Priority 3 flora species (being species that are known from several locations and do not appear to be under imminent threat (Jones, 2015)) have been recorded from the same soil and vegetation types as found within the application area, as discussed below. Rare flora are discussed under Principle (c).

- *Acacia brachyphylla* var. *recurvata* (Priority 3) is known from 15 records at sites generally associated with sandy, clayey and loamy soils. The nearest record of this species is approximately 9.1 kilometres south-west of the application area. Noting the distance to this record, it is unlikely that this species occurs within the application area.
- *Gastrolobium stenophyllum* (Priority 3) is known from 26 records at sites generally associated with watercourses and around rocky outcrops supporting sandy soils (FloraBase website, January 2018). The nearest record of this species is approximately 6.7 kilometres east-north-east of the application area. Noting the extent of weeds present within the portion of the application area traversed by a watercourse, and the absence of rocky outcrops within the application area, it is unlikely that this species occurs within the application area.
- *Stylidium pseudohirsutum* (Priority 3) is known from 15 records at sites generally associated with lower landscape positions supporting sandy or clayey soils (FloraBase website, January 2018). The nearest record of this species is approximately 6.2 kilometres south-west of the application area. Noting that this species appears to favour low-lying areas, and that the application area is generally located on gently undulating terrain, it is unlikely that this species occurs within the application area.

According to available databases, two priority ecological communities (PEC) have been recorded within the local area. These are 'Proteaceae dominated kwongan shrublands of the southeast coastal floristic province of Western Australia' and 'Eucalypt woodlands of the Western Australian Wheatbelt', both listed as Priority 3 by DBCA and as TECs under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). TECs are discussed under Principle (d).

Given the above, the application area is unlikely to comprise a high level of biological diversity. The proposed clearing is not likely to be at variance to this Principle.

GIS Databases:
SAC bio datasets (accessed November 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.

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

As discussed in Section 2, the vegetation within the application area comprises shrublands and mallee, the majority of which is in a degraded (Keighery, 1994) condition.

According to available databases, five fauna specially protected under the *Wildlife Conservation Act 1950* and one priority fauna have been recorded within the local area (DBCA, 2007-). Of these, the malleefowl (listed as rare or likely to become extinct), rainbow bee-eater (protected under international agreement), and western whipbird (western mallee) (listed as Priority 5 by DBCA), may utilise the application area as foraging and breeding habitat.

The applicant's survey recorded a total of 77 avian species, 17 reptile species, five frog species, two native mammal species and four introduced mammal species (Elson, 2016). No conservation significant fauna were observed utilising the application area during the applicant's survey (Elson, 2016).

Noting the extent of the proposed clearing, the condition of the vegetation within the application area and that the proposed clearing is confined to within one metre of the existing back slope on both sides of the road, the application area is unlikely to comprise significant habitat for indigenous fauna including the abovementioned conservation significant species.

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

GIS Databases:
SAC bio datasets (accessed November 2017)

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

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

According to available databases, two rare flora species have been recorded within the local area.

One of these species has been recorded within the same soil and vegetation types as found within the application area. This species favours open conditions amongst low shrubs and sedges, often in sandy clay soil, which becomes saturated during the winter months (Brown et al., 1998). On review of photographs of the application area provided in the applicant's survey, the application area is not likely to contain suitable habitat for this species.

Noting the condition of the vegetation within the application area and the extensive weed invasion, the application area is not likely to include, or be necessary for the continued existence of, rare flora including the abovementioned conservation significant species.

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

GIS Databases:

SAC bio datasets (accessed November 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

According to available databases, no TECs are mapped within the application area. The Commonwealth listed TECs 'Eucalypt woodlands of the Western Australian Wheatbelt' and 'Proteaceae dominated kwongan shrublands of the southeast coastal floristic province of Western Australia' occur approximately 5.6 kilometres north-east and 7.5 kilometres south-east (respectively) of the application area.

The Approved Conservation Advices for these TECs specify a number of criteria for vegetation to be considered representative of these TECs (Department of the Environment, 2014; Department of the Environment, 2015). Noting the condition of the vegetation and the mapped vegetation types within the application area, the application area is unlikely to comprise the whole or part of, or be necessary for the maintenance of, a TEC including the abovementioned Commonwealth-listed TECs.

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

GIS Databases:

SAC bio datasets (accessed November 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.

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).

As indicated in Table 1, Beard vegetation association 1075 is below the 30 per cent threshold. Noting the description of the vegetation within the application area, Beard vegetation association 1075 is unlikely to be represented within the application area. The remaining extents of native vegetation within the bioregion, local government authority and other mapped vegetation association within the bioregion are above the 30 per cent threshold (Government of Western Australia, 2016).

As discussed in Section 2, the local area retains approximately 16 per cent native vegetation cover. Noting this, the application occurs in an extensively cleared landscape. The application area represents less than one per cent of this extent.

Given local area retains approximately 16 per cent native vegetation cover. It is considered, therefore, that the application area is located within a highly cleared landscape. However, given the largely degraded (Keighery, 1994) condition of the vegetation within the application area and noting that the application area does not contain significant habitat for conservation significant fauna or flora, it is considered that the application area is unlikely to be significant as a remnant.

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

Table 1: Vegetation extents

| | Pre-European | Current Extent | Remaining | Current Extent in DCBA Managed Lands | |
|--------------------------------------|--------------|----------------|-----------|-----------------------------------------|-----|
| | (ha) | (ha) | (%) | (ha) | (%) |
| IBRA Bioregion* | | | | | |
| Esperance Plains | 2 899 941 | 1 495 049 | 52 | 820 474 | 10 |
| Local government authority* | | | | | |
| Shire of Jerramungup | 648 534 | 286 515 | 44 | 138 650 | 48 |
| Beard vegetation association* | | | | | |
| 940 | 260 761 | 111 546 | 43 | 52 545 | 47 |
| 1075 | 807 | 130 | 16 | 0 | 0 |

GIS Databases:
Remnant 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.

Proposed clearing is at variance to this Principle

According to available databases, one watercourse intersects with the application area. The watercourse is a minor creek crossing supported by a culvert/drain channel that is constructed underneath the road.

The native vegetation within this portion of the application area is likely to be growing in association with this creek. As indicated in Figure 2 (Photo 1), this portion of the application area is extensively dominated by weed species which include winter grasses, African love grass and Cape weed. Noting this, the proposed clearing is unlikely to significantly impact on native vegetation growing in association with the creek.

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

GIS Databases:
Hydrography, linear

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

Proposed is not likely to be at variance to this Principle

As discussed in Section 2, the majority of the application area is located within the Jerramungup 1 and Jerramungup 2 Subsystems (Schoknecht et al., 2004).

As discussed under Principle (f), a minor creek intersects with the application area.

According to available databases, the application area has relatively flat topography, an average rainfall of 500 millimetres per annum, and saline to highly saline groundwater mapped at 7,000-14,000 total dissolved solids (milligrams per litre).

Noting the above, the extent of the proposed clearing, the condition of the vegetation within the application area, and the long linear shape of the application area, the proposed clearing is unlikely to cause appreciable land degradation in the forms of wind and water erosion or salinity.

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

GIS Databases:
Soils, Statewide
Groundwater salinity
Topographic contours

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

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

According to available datasets, Lake Magenta Nature Reserve and Fitzgerald River National Park are located 9.1 kilometres north and 9.7 kilometres south-east (respectively) of the application area. Given the distance between these conservation areas and the application area, the proposed clearing is not likely to impact on the environmental values of these conservation areas.

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

GIS Database:
DBCA Estate

- (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 under Principle (f), a minor creek intersects the application area.

As discussed under Principle (g), groundwater salinity is mapped at 7,000-14,000 total dissolved solids.

Noting the extent of the proposed clearing, the condition of the vegetation within the application area, and the long linear shape of the application area, the proposed clearing is unlikely to cause deterioration in the quality of surface or underground water.

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

GIS Databases:
Groundwater salinity
Hydrography, linear

- (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

Noting the extent of the proposed clearing, the condition of the vegetation within the application area, and the long linear shape of the application area, the proposed clearing is not likely 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.

GIS Databases:
Hydrography, Linear
Hydrography, Hierarchy

Planning instruments and other relevant matters.

The application was advertised on the Department of Water and Environmental Regulation's website on 2 August 2017 for a 21 day public submission period. No submissions were received during this period.

No registered Aboriginal Sites of Significance occur within the application area.

GIS Databases:
Aboriginal Sites of Significance

3. References

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- Department of Biodiversity Conservation and Attractions (DBCA) (2017) Advice provided in relation to clearing permit application CPS 7704/1, received 23 November 2017 (DWER Ref: A1583868).
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- Department of the Environment (2015). Approved Conservation Advice (including listing advice) for the Eucalypt Woodlands of the Western Australian Wheatbelt. Canberra: Department of the Environment and Energy. Available from: <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/128-conservation-advice.pdf>. In effect under the EPBC Act from 4 December 2015.
- Elson, S. (2016) Fauna and Flora Survey/Vegetation Assessment of Jacup North Road Jerramungup. September 2016 (DER Ref: A1166139).
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- Jones, A. (2015) Threatened and Priority Flora List, 11 November 2015. Department of Parks and Wildlife: Kensington, WA.
- 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.
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