GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 7279/1
Permit Holder:	Shire of Jerramungup
Duration of Permit:	21 January 2017 to 21 January 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 road widening and upgrades.

2. **Land on which clearing is to be done**
   Jacup Road North road reserve (PIN 11639592), Jacup
   South Coast Highway (PIN 11640401), Jacup

3. **Area of Clearing**
   The Permit Holder must not clear more than 0.5 hectares of native vegetation within the area cross-hatched yellow on attached Plan 7279/1.

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. **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.

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;

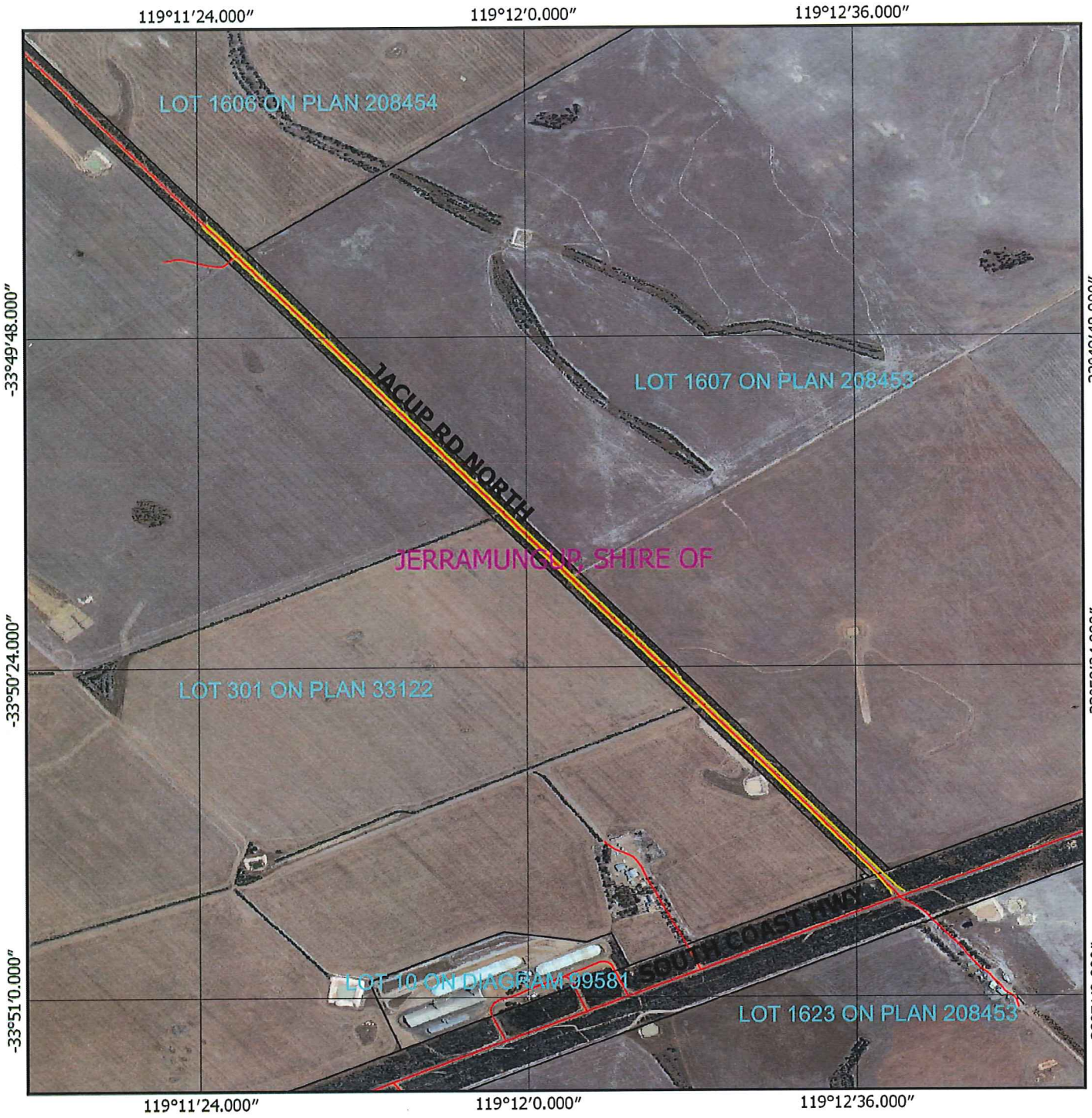
weed/s means any plant -
(a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
(b) published in a Department of Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
(c) not indigenous to the area concerned.

Emma Bramwell
A/ MANAGER
CLEARING REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

20 December 2016

Plan 7279/1



Legend

- Areas approved to clear
- Roads
- LGA
- Cadastre
- Virtual Mosaic

200 0 200 400 600 800 m

N

1:11,780

MGA 94
Geocentric Datum of Australia 1994

E Bramwell Date 20/12/16.

E Bramwell

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

GOVERNMENT OF WESTERN AUSTRALIA

Government of Western Australia
Department of Environment Regulation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 7279/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: Shire of Jerramungup

1.3. Property details

Property: ROAD RESERVE - 11640401, JACUP
ROAD RESERVE - 11639592, JACUP
Colloquial name: Jacup Road North and South Coast Highway
Local Government Authority: JERRAMUNGUP, SHIRE OF
DER Region: South Coast
DPaW District: ALBANY
Localities: JACUP

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 20 December 2016
Reasons for Decision: The clearing permit application was received on 16 September 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 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 determined that the proposed clearing may increase the risk of weeds being introduction or spread into adjacent native vegetation. Weed management measures will minimise impacts to adjacent roadside vegetation. State policies and other relevant policies have been taken into consideration in the decision to grant a clearing permit.

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
The application area is mapped as Beard vegetation association 940, which is described as Mosaic: Shrublands; mallee scrub, black marlock / Shrublands; tallerack mallee-heath (Shepherd et al., 2001).	The application is to clear 0.5 hectares of native vegetation within Jacup Road North Road reserve (PIN 11639592) and South Coast Highway (PIN 11640401), Jacup, for the purpose of road widening and upgrades.	Completely Degraded; No longer intact, completely/almost completely without native species (Keighery, 1994). To Good; Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).	The condition of the vegetation within the application area was established via aerial imagery and photographs provided by the applicant (Shire of Jerramungup, 2016a).

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 0.5 hectares of native vegetation within Jacup Road North Road reserve (PIN 11639592) and South Coast Highway (PIN 11640401), Jacup, for the purpose of road widening and upgrades along a three kilometre stretch of road commencing at the South Coast Highway and Jacup Road North intersection. The applicant proposes to clear up to one metre from the existing back slope from both sides of the road for the proposed works (Shire of Jerramungup, 2016b).

The vegetation within the application area ranges from a completely degraded to good (Keighery, 1994) condition, with the majority of the vegetation being of a degraded (Keighery, 1994) condition. Photographs provided by the applicant indicate that the understorey vegetation within the application area contains a high concentration of weed invasion (Shire of Jerramungup, 2016a).

According to available databases, a total of two rare flora taxa and seventeen priority (P) flora taxa have been recorded within the local area (10 kilometre radius). The closest of these are two P3 species *Microcorys longiflora* and *Acacia bifaria*, which have been mapped approximately 3.8 kilometres from the application area. P3 species are generally known from collections from several different localities not under imminent threat (Department of Parks and Wildlife, 2014). Noting the habitat requirements of these species and the vegetation and soil types found within the application area, suitable habitat for these species may occur within the application area. The application area may also comprise suitable habitat for one of the rare flora taxa recorded within the local area. Noting that the understorey vegetation within the application area is subject to weed invasion, and the long, linear shape of the application area and largely degraded (Keighery, 1994) condition of the vegetation, it is unlikely that the proposed clearing will impact on the conservation status of these species.

The vegetation within the application area may provide suitable habitat for three conservation significant fauna including the malleefowl (*Leipoa ocellata*), rainbow bee-eater (*Merops ornatus*) and the western whipbird (western mallee) (*Psophodes nigrogularis* subsp. *oberon*). Noting the understorey vegetation within the application area is subject to weed invasion, and the long, linear shape of the application area and largely degraded (Keighery, 1994) condition of the vegetation, the proposed clearing is unlikely to significantly impact upon the conservation status of these species. No conservation significant fauna were recorded during a fauna survey (Elson, 2016).

No priority ecological communities or threatened ecological communities (TEC) are mapped within the application area. The closest TEC is the federally listed 'Proteaceae dominated kwongkan shrublands of the southeast coastal floristic province of Western Australia', located approximately 4.2 kilometres north west of the application area. Noting that the understorey vegetation within the application area is subject to weed invasion, and the largely degraded (Keighery, 1994) condition of the vegetation within the application area, this TEC is unlikely to occur within the application area.

The proposed clearing is likely to increase the risk of weeds spreading into adjacent native vegetation. Potential impacts to adjacent biodiversity values as a result of the proposed clearing may be minimised by the implementation of weed management practices.

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

Methodology

References:
Department of Parks and Wildlife (2014)
Elson (2016)
Keighery (1994)
Shire of Jerramungup (2016a)
Shire of Jerramungup (2016b)

GIS Databases:
SAC Bio Datasets (Accessed December 2016)

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

Comments

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

The vegetation within the application area is mapped as Beard vegetation association 940, described as mosaic: Shrublands; mallee scrub, black marlock / Shrublands; tallerack mallee-heath (Shepherd et al., 2001).

A search of the Naturemap database (Department of Parks and Wildlife, 2007-) returned five records of conservation significant fauna species within the local area (10 kilometre radius). A fauna 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 fauna survey (Elson, 2016). Of the species recorded, three species of conservation significance listed under the *Wildlife Conservation Act 1950* (WC Act) may utilise the application area for foraging and breeding habitat. These species are malleefowl (*Leipoa ocellata*) listed as rare or likely to become extinct, rainbow bee-eater (*Merops ornatus*) listed as 'protected under international agreement' under the WC Act, and western whipbird (western mallee) (*Psophodes nigrogularis* subsp. *oberon*) listed as P5 by the Department of 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). Given the vegetation within the application area is consistent with this vegetation type, suitable habitat for this species may occur within the application area. The fauna survey identified that the mallee and sub-mallee vegetation communities within the application area were extensively fragmented and significantly impacted by invasive weed species (Elson, 2016). Given this, and the long and linear nature of the proposed clearing, it is unlikely the application area contains significant habitat for this species.

The rainbow bee-eater occurs in numerous habitats including open forests and woodlands, shrublands, in cleared or semi-cleared habitats such as areas of human habitation and farmland. It prefers open, cleared or lightly-timbered areas that are often, but not always in close proximity to permanent water (Department of the Environment and Energy, 2016b). Suitable habitat for this species is likely to occur within the application area. Given the highly mobile nature of this species and the long and linear nature of the application area, the proposed clearing is unlikely to significantly impact upon the conservation status of this species.

The western whipbird (western mallee) has a preference for open mallee vegetation with a dense, tall shrub layer up to 1.5 metres tall, and dominated by such species as *Hakea, Lambertia, Dryandra* or *Banksia* species (Department of Environment and Energy, 2016c). The application area is likely to provide suitable habitat for western whipbird (western heath), however given the mobile nature of this species it is unlikely this species would roost exclusively in the application area.

Given the above, the vegetation proposed to be cleared is unlikely to represent significant habitat for native fauna and the proposed clearing is not likely to be at variance to this Principle.

Methodology

References:
Department of Environment and Energy (2016a)
Department of Environment and Energy (2016b)
Department of Environment and Energy (2016c)
Department of Parks and Wildlife (2007-)
Elson (2016)
Shepherd et al. (2001)

GIS Databases:
SAC Bio Datasets (Accessed December 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

Two rare flora species have been recorded within the local area (10 kilometre radius).

One of these species has been recorded within the same combination of soil and vegetation types as mapped within the application area. This species is listed as vulnerable under the WC Act and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). It is a tuberous perennial herb, with yellow flowers, growing between 0.15 to 0.25 metres high (Western Australian Herbarium, 1998-). 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). The closest known record of this species is located approximately 9.2 kilometres from the application area. According to available databases, thirty seven records of this species exist over a range of approximately 245 kilometres and the taxa are represented in conservation estate. Given this, and the linear, largely degraded (Keighery, 1994) condition of the application area that has significant weed invasion, it is not likely this species would occur or be significantly impacted by the proposed clearing.

Noting the habitat requirements of the second rare flora species, the application area does not represent suitable habitat for this species.

Given the above, the proposed clearing is not likely to impact on rare flora and is not likely to be at variance to this Principle.

Methodology

References:
Brown et al. (1998)
Western Australian Herbarium (1998-)

GIS Databases:
SAC Bio Datasets (Accessed December 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, no TECs are mapped within the application area. The closest TEC is the Commonwealth listed 'Proteaceae dominated kwongkan shrublands of the southeast coastal floristic province of Western Australia', located approximately 4.2 kilometres north west of the application area. This TEC is listed as endangered and is protected under the EPBC Act. Noting the vegetation type mapped within the application area, it is considered that the application area may be representative of this TEC. However noting the understorey vegetation within the application area is subject to weed invasion, and the largely degraded (Keighery, 1994) condition of the vegetation within the application area, this TEC is unlikely to occur within the application area.

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

Methodology GIS Databases:
SAC Bio Datasets (Accessed December 2016)

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

Comments

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

The application area is located within the Esperance Plains Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 52 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 940 of which there is approximately 43 per cent of its pre-European extent remaining within the Esperance Plains bioregion (Government of Western Australia, 2015).

The application area is located within the Shire of Jerramungup, within which there is approximately 44 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 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.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife Managed Lands (%)
IBRA Bioregion*				
Esperance Plains	2,899,941	1,495,049	52	55
Local government authority*				
Shire of Jerramungup	648,534	286,515	44	48
Beard Vegetation Association in Bioregion*				
940	260,761	111,546	43	47

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 may be at variance to this Principle

According to available databases, no watercourses or wetlands occur within the application area. The closest hydrological feature is a minor non-perennial watercourse mapped approximately 16 metres east of the application area and approximately 30 metres north of South Coast Highway. Two minor drainage lines are mapped 30 metres east and 50 metres west of the application area respectively.

Given the above it is considered that the proposed clearing may impact on vegetation growing in association with these mapped hydrological features, however noting the extent of the proposed clearing, the long, linear shape of the application area and the largely degraded (Keighery, 1994) condition of the vegetation within the application area, it is unlikely that the proposed clearing will significantly impact riparian vegetation.

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

Methodology GIS Databases:
Hydrography, linear
Hydrography, hierarchy
Geomorphic wetlands

(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 by the Department of Agriculture and Food Western Australia as three soil landscape units, being the Jerramungup 1 Subsystem (Map Unit 243Jm_1), Jerramungup 2 Subsystem (Map Unit 243Jm2) and Jerramungup 6 Subsystem (Map Unit 243Jm_6).

The majority of the application area is located within the Jerramungup 1 Subsystem (approximately 85 per cent) which is described as level to only very gently inclined, often poorly drained, plain zero to three per cent gradient and less than nine metre relief (Schoknecht et al., 2004). Jerramungup 2 Subsystem covers approximately 19 per cent of the application area and is 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. One per cent of the application area covers Jerramungup 6 Subsystem and is described as areas of significant rock outcrop including monadnocks and sheet rock benches. Associated soils include skeletal or rocky soils (Rudosols) and gravelly soils found on an apron that occurs around the base of the rock outcrop (Schoknecht et al., 2004).

Given the relatively small size and linear nature of the application area, it is unlikely that wind erosion post clearing will lead to appreciable land degradation.

Given there are no hydrological water features that occur within the application area, the relatively flat topography of the subject land, the low rainfall (500 millimetres per annum) and largely degraded (Keighery, 1994) condition of the vegetation under application, the proposed clearing is unlikely to cause land degradation in the form of water erosion.

Groundwater is saline to highly saline, mapped at 7,000-14,000 total dissolved solids (milligrams per litre). Given the long and linear nature of the application area, the proposed clearing is unlikely to contribute to the rise of groundwater resulting in land degradation due to increased salinity at the surface.

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

Methodology

References:
Keighery (1994)
Schoknecht et al (2004)

GIS Databases:
Soils, Statewide
Groundwater salinity

(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 reserve, Fitzgerald River National Park (Class A), is located six kilometres south east of the application area. Given the distance to this reserve from the application area, the proposed clearing will not impact upon the environmental values of this reserve.

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

Methodology

References:
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

No watercourses or wetlands are mapped within the application area. Given this and noting the extent of the proposed clearing and the largely degraded (Keighery, 1994) condition of the vegetation within the application area, the proposed clearing is unlikely to cause deterioration in the quality of surface water.

Groundwater salinity mapped within the application area is between 7,000-14,000 milligrams per litre total dissolved solids (saline to highly saline). Given the linear nature of the application area, 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
Groundwater Salinity Statewide

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

Comments

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

The proposed clearing is not expected to cause flooding given the linear nature of the application area and that there are no watercourses or wetlands present within the application area

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

Methodology

GIS Databases:
Hydrography, Linear
Hydrography, Hierarchy

Planning instruments and other relevant matters.

Comments

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

The application was advertised in *The West Australian* newspaper on 17 October 2016 for a 21-day submission period. No public submissions were received in relation to the proposed clearing.

Methodology

GIS Databases:
Aboriginal Sites of Significance

4. References

Brown A., Thomson-Dans, C. and Marchant, N. (1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia. Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

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 19/12/2016

Department of Parks and Wildlife (2014) Conservation Codes for Western Australia Flora and Fauna. Department of Parks and Wildlife. Western Australia.

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) *Merops ornatus* in Species Profile and Threats Database, Department of the Environment, Canberra.

Department of the Environment and Energy (2016c) '*Psophodes nigrogularis oberon* – Western Whipbird (western mallee) in Species Profile and Threats Database, Department of the Environment and Energy, Canberra.

Elson, S. (2016) Fauna and Flora Survey/Vegetation Assessment of Jacup North Road Jerramungup. September 2016 (DER Ref: A1166139).

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 Jerramungup (2016a) Additional information provided by the applicant for Clearing Permit CPS 7279/1. Western Australia. (DER Ref: A1187341).

Shire of Jerramungup (2016b) Application for a Clearing Permit CPS 7279/1. Western Australia (DER Ref: A1166139).

Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. http://florabase.dpaw.wa.gov.au/ (Accessed 19/12/2016).