GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5451/1
Permit Holder:	Shire of Esperance
Duration of Permit:	15 March 2013 – 15 March 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 sourcing base material for road construction.

2. **Land on which clearing is to be done**
   Norwood Road reserve, Scaddan (PIN 11644418)

3. **Area of Clearing**
   The Permit Holder must not clear more than 2 hectares of native vegetation within the area shaded yellow on attached Plan 5451/1.

4. **Period in which clearing is authorised**
   The Permit Holder shall not clear any native vegetation after 15 March 2018

5. **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.

6. **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.

7. **Compliance with Assessment Sequence and Management Procedures**
   Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

8. 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.

9. 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) shall only move soils in *dry conditions*;
(c) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
(d) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

10. Retain vegetative material and topsoil, revegetation and rehabilitation

The Permit Holder shall:

(a) retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared.
(b) within 3 months following completion of extractive activities, revegetate and rehabilitate the areas shaded yellow on attached Plan 5451/1 by:
    (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land; and
    (ii) ripping the ground on the contour to remove soil compaction; and
    (iii) laying the vegetative material and topsoil retained under condition 10(a) on the cleared areas
(c) within 24 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 10(b) of this Permit:
    (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
    (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 10(c)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.
(d) Where additional *planting* or *direct seeding* of native vegetation is undertaken in accordance with condition 10(c)(ii) of this permit, the Permit Holder shall repeat condition 10(c)(i) and 10(c)(ii) within 24 months of undertaking the additional *planting* or *direct seeding* of native vegetation.
(e) Where a determination by an *environmental specialist* that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, as determined in condition 10(c)(i) and (ii) of this permit, that determination shall be submitted for the CEO's consideration. If the CEO does not agree with the determination made under condition 10(c)(ii), the CEO may require the Permit Holder to undertake additional *planting* and *direct seeding* in accordance with the requirements under condition 10(c)(ii).

PART III - RECORD KEEPING AND REPORTING

11. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

(a) In relation to the clearing of native vegetation authorised under this Permit:
  (i) the species composition, structure and density of the cleared area;
  (ii) 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;
  (iii) the date that the area was cleared; and
  (iv) the size of the area cleared (in hectares).

(b) In relation to the ***revegetation*** **and** ***rehabilitation*** of areas pursuant to condition 10 of this Permit:
  (i) the location of any areas *revegetated* and *rehabilitated*, 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;
  (ii) a description of the *revegetation* and *rehabilitation* activities undertaken;
  (iii) the size of the area *revegetated* and *rehabilitated* (in hectares);
  (iv) the species composition, structure and density of *revegetation* and *rehabilitation*, and
  (v) a copy of the environmental specialist's report.

12. Reporting

(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 11 of this Permit; and
  (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 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 15 December 2022, the Permit Holder must provide to the CEO a written report of records required under condition 11 of this Permit where these records have not already been provided under condition 12(a) of this Permit.

DEFINITIONS

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

dieback means the effect of *Phytophthora* species on native vegetation;

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

dry conditions means when soils (not dust) do not freely adhere to rubber tyres, tracks, vehicle chassis or wheel arches;

environmental specialist means a person who is engaged by the Permit Holder for the purpose of providing environmental advice, who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit;

fill means material used to increase the ground level, or fill a hollow;

local provenance means native vegetation seeds and propagating material from natural sources within 30 kilometres of the area cleared.

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;

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as natural *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.
weed/s means any plant -

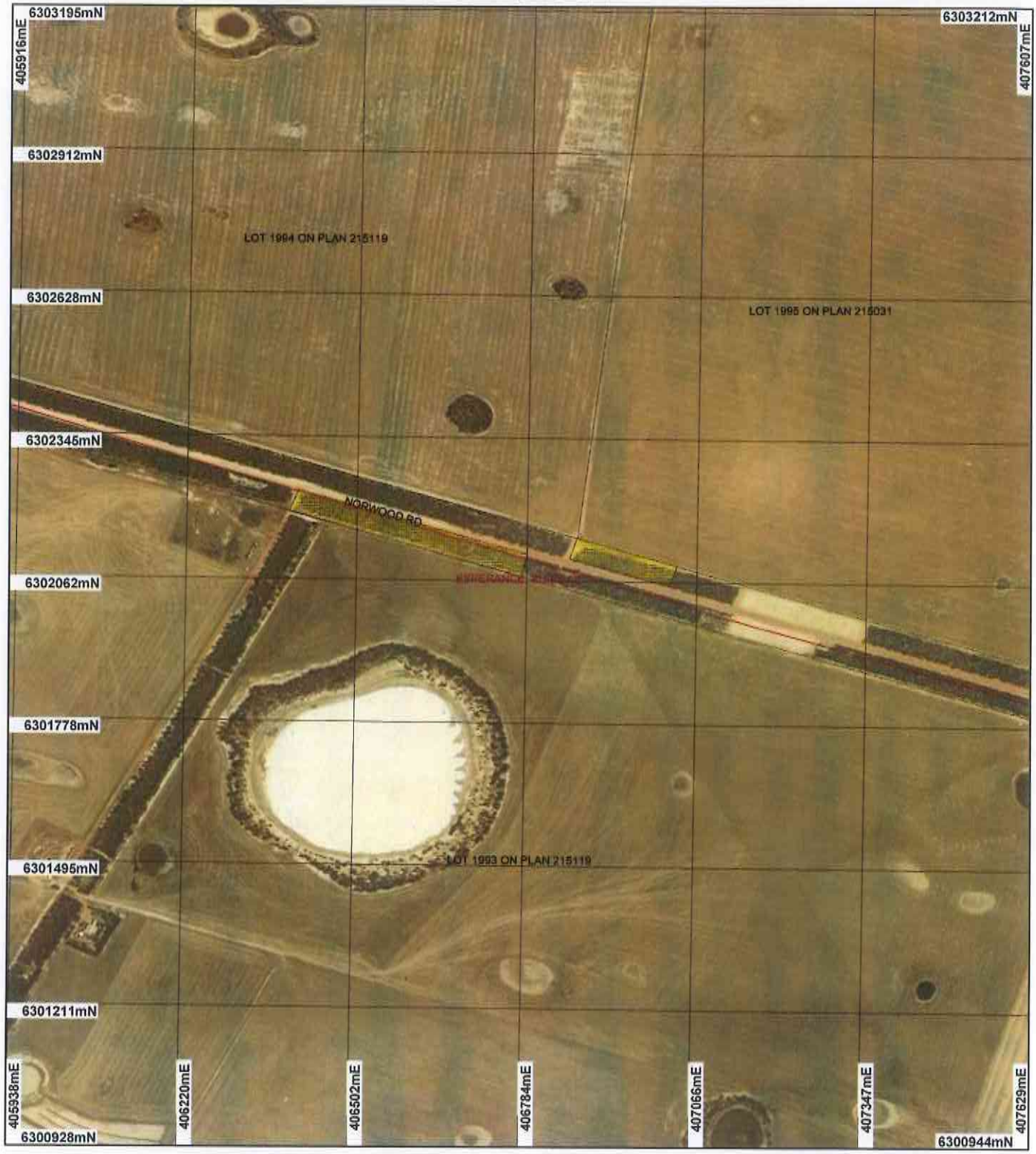
(a) that is declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*; or
(b) published in the Department of Environment and Conservation Regional Weed Assessments, regardless of ranking; or
(c) not indigenous to the area concerned.

M Warnock
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

Officer delegated under Section 20
of the Environmental Protection Act 1986

21 February 2013

Plan 5451/1



LEGEND

Local Government Authorities

Cadastre

Road Centrelines

Scaddan 1.4m Orthomosaic - Landgate 2004

Clearing Instruments

Areas Approved to Clear

N

0 300 m

Scale 1:10000
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

M Warnock Date 21/3/13

Information derived from this map should be confirmed with the data custodian acknowleged by the agency acronym in the legend.

Department of Environment and Conservation

Our environment, our future

Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5451/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Esperance

1.3. Property details

Property: ROAD RESERVE (SCADDAN 6447)
Local Government Area: Shire of Esperance
Colloquial name: Norwood Road reserve, Scaddan

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2		Mechanical Removal	Extractive Industry

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 21 February 2013

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: 1516 - Shrublands; mallee scrub, black marlock and Forrest's marlock (Shepherd et al. 2001).	The application is to clear up to 2 hectares of native vegetation within Norwood Road reserve, Scaddan, for the purpose of sourcing base material for road construction. The vegetation under application is sparse Eucalyptus forrestiana and Eucalyptus uncinata, with a tall open scrub dominated by Melaleucas such as Melaleuca glaberrima, Melaleuca rigidifolia, Melaleuca bromelioides, Melaleuca eleuterostachya, and Melaleuca podiocarpa. Other shrub species include Grevillea plurijuga subsp superba, Leptomeria pachyclada, Daviesia benthamii subsp benthamii, Persoonia teretifolia, Pomaderris rotundifolia, Pultenaea elachista and Dodonaea amblyophylla. The ground cover is bare and open (Tilo Massenbauer 2012).	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	Vegetation description and condition were determined through aerial imagery and supporting documentation provided by the applicant (Tilo Massenbauer 2012).

3. Assessment of application against clearing principles

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

Comments

Proposal may be at variance to this Principle

The application is to clear up to 2 hectares of native vegetation within Norwood Road reserve, Scaddan, for the purpose of sourcing base material for road construction.

The vegetation under application is sparse Eucalyptus forrestiana and Eucalyptus uncinata, with a tall open scrub dominated by Melaleucas such as Melaleuca glaberrima, Melaleuca rigidifolia, Melaleuca bromelioides, Melaleuca eleuterostachya, and Melaleuca podiocarpa. Other shrub species include Grevillea plurijuga subsp superba, Leptomeria pachyclada, Daviesia benthamii subsp benthamii, Persoonia teretifolia, Pomaderris rotundifolia, Pultenaea elachista and Dodonaea amblyophylla. The ground cover is bare and open (Tilo Massenbauer 2012). The vegetation is in excellent (Keighery 1994) condition.

The vegetation under application has high conservation value, a result of the condition and intact nature of the vegetation, the high species diversity, low weed infestation and medium/high value as a biological corridor (RCC 2002).

There are numerous records of priority flora within the local area (10 kilometre radius). The closest record occurring on the same soil and vegetation type as the application area is a priority two species, which is located approximately 2.2 kilometres from the application area. A vegetation and flora survey conducted over the application area did not find evidence of any priority flora (Tilo Massenbauer 2012).

There are no priority ecological communities within the local area (10 kilometre radius).

The application area is surrounded by cleared areas used for agriculture. The vegetation along the road reserve acts as an ecological linkage within the landscape, providing a corridor for the dispersal of native fauna.

The disturbance caused by the proposed clearing will increase the risk of weeds and dieback being introduced into surrounding areas of vegetation. Weed and dieback management practices will assist in mitigating this risk.

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

Methodology

References:
Keighery 1994
RCC 2002
Tilo Massenbauer 2012
GIS Databases:
- Pre European Vegetation
- SAC Biodatasets
- Soils, Statewide

(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

Proposal is not likely to be at variance to this Principle

There are numerous records of fauna species within the local area, however none of these records are of conservation significant species (10 kilometre radius) (DEC 2007-).

The proposed clearing occurs within the non-breeding range of Carnaby's cockatoo (Calyptorhynchus latirostris; rare or likely to become extinct, Wildlife Conservation Act 1950; endangered, Environment Protection and Biodiversity Conservation Act 1999) (Commonwealth of Australia). Carnaby's cockatoos are unlikely to forage on any of the dominant flora species identified within the area under application (Valentine and Stock 2008).

The area under application is in excellent (Keighery 1994) condition. The Mount Ridley Nature Reserve is located approximately 2.3 kilometres southeast of the application area and is likely to provide significant habitat for local fauna species. The area under application may provide an ecological link between this nature reserve and other remnant pockets of vegetation.

Revegetation and rehabilitation practices will assist in reversing the fragmentation of this linkage.

The proposed clearing is not likely to be at variance to this principle.

Methodology

References:
DEC 2007-
Commonwealth of Australia 2012
Keighery 1994
Valentine and Stock 2008
GIS Databases:
- DEC Tenure

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

Comments

Proposal is not likely to be at variance to this Principle

The closest record of a rare flora species is located approximately 1.3 kilometres from the application area.

This species occurs on flat to slightly rising sites near salt lakes, particularly to the north-east of the lakes. This species often occurs nearby to mallee eucalypts, such as Eucalyptus litoralis and E. halophila (DSEWPC 2013).

There may be suitable habitat for this species within the application area, however a vegetation and flora survey conducted over the application area did not find evidence of any rare flora (Tilo Massenbauer 2012).

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

Methodology

References:
DSEWPC 2013
Tilo Massenbauer 2012
GIS Databases:
- SAC Biodatasets

(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

Proposal is not likely to be at variance to this Principle

There are no records of threatened ecological communities within the local area (10 kilometre radius).

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

Methodology

GIS Databases:
- SAC Biodatasets

(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

Proposal is not likely to be at variance to this Principle

Aerial photography indicates the local area (10 kilometre radius) is approximately 30 percent vegetated.

The IBRA Bioregion (Mallee) and the local government agency (Shire of Esperance) retain approximately 56 percent and 71 percent of their respective pre-European extents (Government of Western Australia 2011).

The application area is mapped as Beard Vegetation Association 1516, which retains approximately 57 918 hectares (46 percent) of its pre-European extent within the Mallee IBRA Bioregion.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 percent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001).

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Mallee	7 395 897	4 114 885	56	31
Shire*				
Shire of Esperance	4 459 701	3 187 495	71	30
Beard Vegetation Association in Bioregion*				
1516	125 543	57 918	46	41

* Government of Western Australia 2011

The local area and Beard Vegetation Association 1516 retain above the nationally recommended threshold level. The area under application is not likely to be a significant remnant in an area that has been extensively cleared.

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

Methodology

References:
Commonwealth of Australia 2001
Government of Western Australia 2011
GIS Databases:
- Burdett 50cm Orthomosaic - Landgate 2008
- NLWRA, Current extent of Native Vegetation
- Pre-European Vegetation
- SAC Biodatasets
- Scaddan 1.4m Orthomosaic - Landgate 2004

(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

Proposal is not likely to be at variance to this Principle

There are numerous watercourses within the local area (10 kilometre radius). There are two minor non-perennial salt lakes within close proximity to the application area. Both lakes are approximately 200 metres from the application area.

The vegetation under application is not growing in association with a watercourse or wetland, therefore the proposed clearing is not likely to be at variance to this principle.

Methodology

GIS Databases:
- Hydrography, Linear

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

Comments

Proposal is not likely to be at variance to this Principle

The application area has been mapped as soil type Ya30, which Northcote et al. (1960-1968) describes as gently undulating plains with some seasonal lakes, clay pans, and low-lying areas subject to flooding, and some lunettes and dunes; acid clays commonly occur below 6 12 ft: chief soils on the plains are sandy alkaline yellow mottled soils.

The application area has a mean annual rainfall of 500mm.

The main land degradation risk associated with this sandy soil type is wind erosion. Given the relatively small area under application, the proposed clearing is not likely to cause appreciable land degradation.

Therefore, the application is not likely to be at variance to this principle.

Methodology

References:
Northcote et al. 1960-1968
GIS Databases:
- Mean annual rainfall

(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

Proposal may be at variance to this Principle

The closest conservation area is the Mount Ridley Nature Reserve, which is located approximately 2.3 kilometres southeast of the application area.

The vegetation under application is located within a section of road reserve with high conservation value, a result of the condition and intact nature of the vegetation, the high species diversity, low weed infestation and medium/high value as a biological corridor (RCC 2002).

The disturbance caused by the proposed clearing will increase the risk of weeds and dieback being introduced into surrounding areas of vegetation. Weed and dieback management practices will assist in mitigating this risk.

Therefore, the proposed clearing may be at variance to this principle.

Methodology

Referenes:
RCC 2002
GIS Databases:
- DEC 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

Proposal is not likely to be at variance to this Principle

There are no watercourses or wetlands located within the application area, therefore surface water quality is unlikely to be impacted by the proposed clearing.

The groundwater salinity within the application area is 14 000 - 35 000 milligrams per litre of Total Dissolved Solids. This level of groundwater salinity is considered to be highly saline. Given the relatively small area under application, the clearing is unlikely to significantly increase groundwater salinity.

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

Methodology

GIS Databases:
- Groundwater Salinity, Statewide
- 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.

Comments

Proposal is not likely to be at variance to this Principle

The application area has been mapped as soil type Ya30, which Northcote et al. (1960-1968) describes as gently undulating plains with some seasonal lakes, clay pans, and low-lying areas subject to flooding, and some lunettes and dunes; acid clays commonly occur below 6 12 ft: chief soils on the plains are sandy alkaline yellow mottled soils.

Given the low annual rainfall and the porous nature of the soil mapped over the application area, the proposed clearing is not likely to increase the incidence or intensity of flooding.

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

Methodology References:
Northcote et al. 1960-1968
GIS Databases:
- Mean annual rainfall
- Soils, Statewide

Planning instrument, Native Title, Previous EPA decision or other matter.

Comments

No public submissions have been received in relation to this application.

Methodology

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 (2012) EPBC Act referral guidelines for three threatened black cockatoo species, Canberra.

DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: http://naturemap.dec.wa.gov.au/. Accessed 31/01/2013.

Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, 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.

Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.

RCC (2002) Roadside Vegetation and Conservation Values in the Shire of Esperance. Roadside Conservation Commitee, Western Australia.

Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.

Tilo Massenbauer (2012) Norwood Road Limestone Extraction Site - Level 1 Flora and Vegetation Survey. Tilo Massenbauer, Western Australia (DEC REF: A591634).

Valentine, L.E. & 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, Western Australia.

5. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)