



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 6041/1
Permit Holder:	Shire of Narrogin
Duration of Permit:	19 July 2014 to 19 July 2019

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

1. Purpose for which clearing may be done

Clearing for the purpose of road construction.

2. Land on which clearing is to be done

Lot 158 on Plan 138186 (Dumberning 6312)
Lot 75 on Plan 108939 (Dumberning 6312)
Lot 2580 on Plan 109132 (Dumberning 6312)
Lot 8601 on Plan 132108 (Dumberning 6312)
Crown Reserve 11762 (Dumberning 6312)
Lot 4579 on Plan 113944 (Dumberning 6312)
Lot 22 on Plan 64336 (Dumberning 6312)
Williams Location 11837 (Narrogin Valley 6312)
Wanerie Road reserve (PIN:11554019) Dumberning 6312
Unnamed Road reserve (PIN:11554022, PIN: 11554021, PIN 11554040 and PIN: 11554041)
(Dumberning 6312)
Unnamed Road reserve (PIN: 11554039 and PIN: 11554036) (Dumberning 6312)
Unnamed Road reserve (PIN: 11554038) (Dumberning 6312)
Great Southern Highway road reserve (PIN:11535006 and 11535007) (Dumberning 6312 and Narrogin Valley 6312)

3. Area of Clearing

The Permit Holder must not clear more than 1.48 hectares of native vegetation within the combined areas hatched yellow on attached Plan 6041/1a, 6041/1b, 6041/1c and 6041/1d.

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.



M Warnock
SENIOR MANAGER
CLEARING REGULATION

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

19 June 2014

Plan 6041/1a



LEGEND

- Cadastre for labelling
- Road Centrelines
- Local Government Authorities Clearing Instruments
- Areas Approved to Clear
- Narragin 80cm Orthomosaic - Landgate 2005



0 100 m

Scale 1:36000

(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. Warneck 19.6.14

M. Warneck

Date

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

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



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Department of Environment Regulation

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Plan 6041/1b



LEGEND

- Cadastre for labelling
- Road Centrelines
- Local Government Authorities
- Clearing Instruments
- Areas Approved to Clear
- Narraggin 80cm Orthomosaic - Landgate 2005

Scale 1:3600
 (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 Warrnook
 19.6.14
 Date

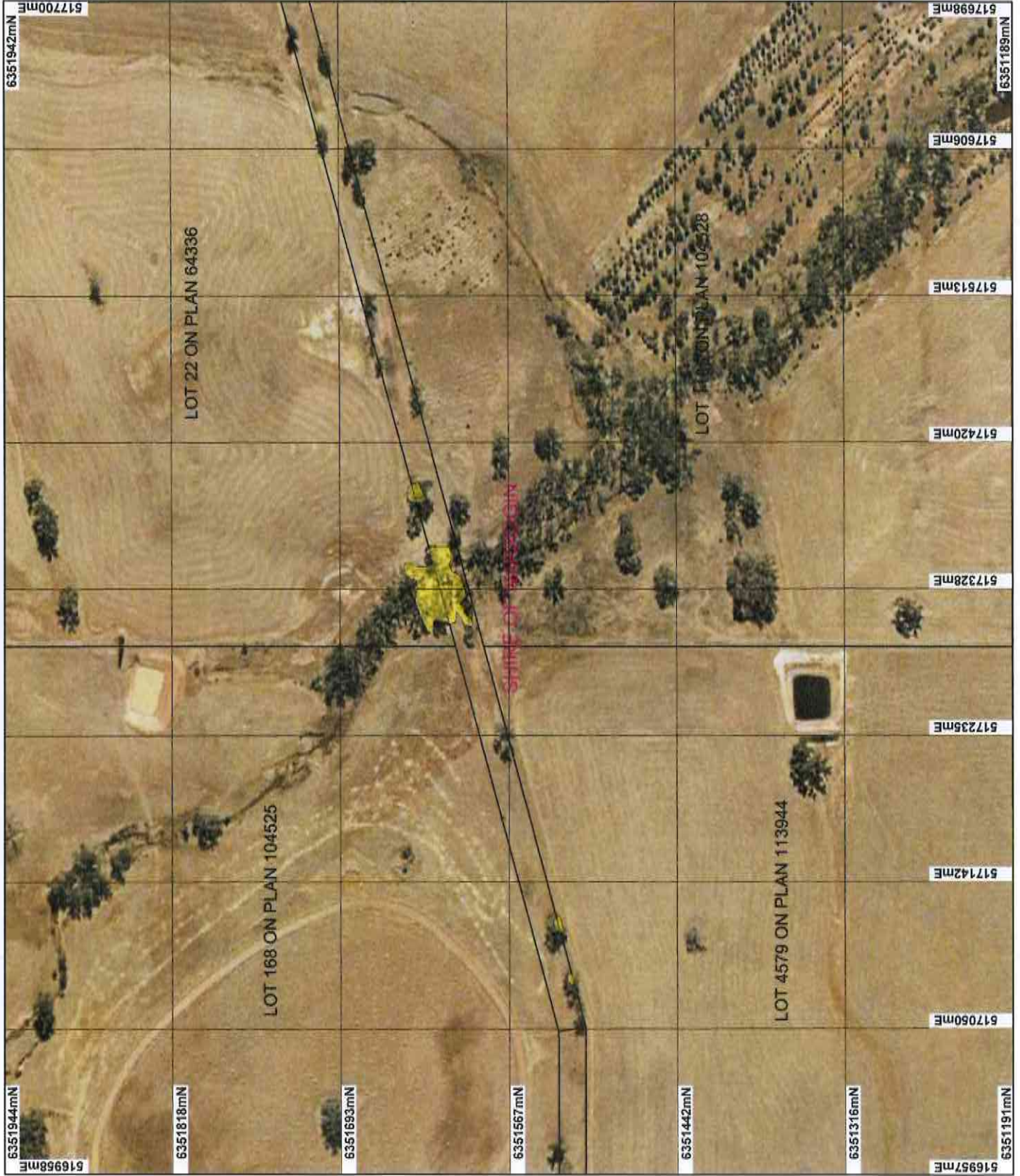
Office with delegated authority under Section 20 of the Environmental Protection Act 1986

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

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 Department of Environment Regulation


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Plan 6041/1c




LEGEND

- Cadastre for labelling
- Road Centrelines
- Local Government Authorities Clearing Instruments
- Areas Approved to Clear
- Marrogin 80cm Orthomosaic - Landgate 2005

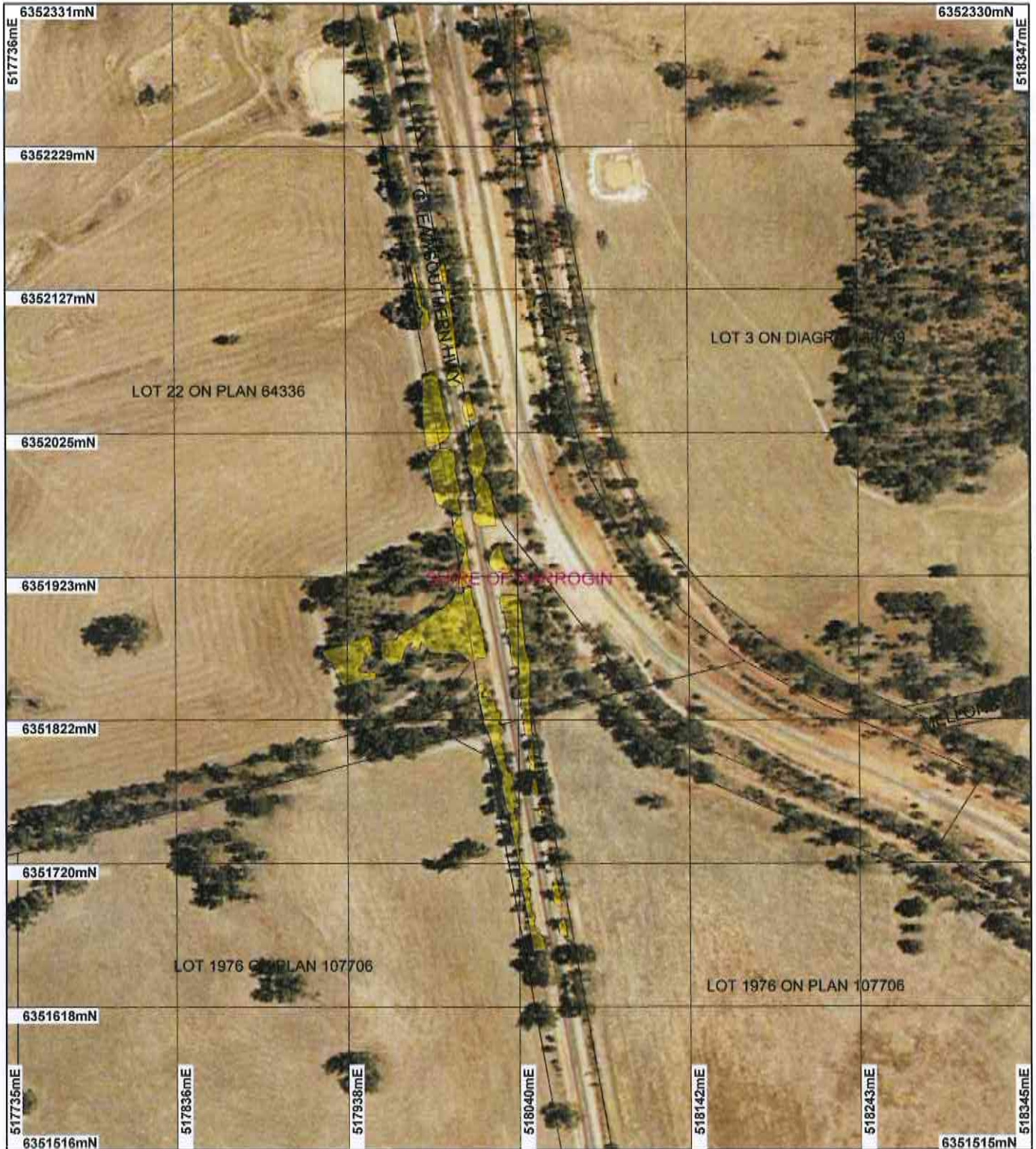


 Scale 1:3600
 (Approximate when reproduced at A4)
 Geocentric Datum Australia 1994
 Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

M Waincock Date 19.6.14
 Officer with delegated authority under Section 20 of the Environmental Protection Act 1986
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 Department of Environment Regulation
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Plan 6041/1d



LEGEND

- Cadastre for labelling
- Road Centrelines
- Local Government Authorities
- Clearing Instruments

Narrogin 80cm Orthomosaic - Landgate 2005



Scale 1:3600
(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 19/6/14

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

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



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6041/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Narrogin

1.3. Property details

Property: ROAD RESERVE (DUMBERNING 6312)
LOT 158 ON PLAN 138186 (House No. 230 NARRAKINE DUMBERNING 6312)
LOT 75 ON PLAN 108939 (DUMBERNING 6312)
ROAD RESERVE (DUMBERNING 6312)
LOT 2580 ON PLAN 109132 (DUMBERNING 6312)
LOT 8601 ON PLAN 132108 (DUMBERNING 6312)
CROWN RESERVE 11762 (DUMBERNING 6312)
ROAD RESERVE (DUMBERNING 6312)
LOT 4579 ON PLAN 113944 (DUMBERNING 6312)
ROAD RESERVE (DUMBERNING 6312)
LOT 22 ON PLAN 64336 (Lot No. 22 WANERIE DUMBERNING 6312)
ROAD RESERVE (DUMBERNING 6312)
WILLIAMS LOCATION 11837 (NARROGIN VALLEY 6312)
ROAD RESERVE (NARROGIN VALLEY 6312)

Local Government Area: Shire of Narrogin
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 19 June 2014

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
Mapped Beard vegetation association 1023 is described as 'medium woodland; York gum, wandoo & salmon gum (Eucalyptus salmonophloia)'	The clearing of 1.48 hectares of native vegetation within numerous road reserves and properties within the Shire of Narrogin is for the purpose of road construction.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994) To Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The condition and description of the vegetation was determined via aerial imagery and a site inspection undertaken by the Department of Parks and Wildlife (Parks and Wildlife 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

Proposal is not likely to be at variance to this Principle

The clearing of 1.48 hectares of native vegetation within numerous road reserves and properties within the Shire of Narrogin is for the purpose of road construction.

The application area consists of singular trees or small clumps of trees located along a number of road reserves or properties within the Shire of Narrogin. The alignment of the proposed road has been designed to utilise cleared farm land to avoid clearing remnant vegetation located within the designated road reserve.

Numerous priority flora species have been recorded within the local area (10 kilometre radius). The closest being a Priority 3 flora species located approximately 2.8 kilometres from the application area. A Priority 1 and Priority 2 species have also been recorded within 3.5 kilometres.

The Priority 1 flora species is found on sandy clay on hillslopes or adjacent to granite outcrops within open woodland, shrubland (Western Australian Herbarium 1998-). The Priority 2 Flora species is found on lateritic gravelly soils and sandstone within creeklines, gullies and scree slopes (Western Australian Herbarium 1998-). The Priority 3 flora species is found on sandy, clay or loamy soils over laterite within Eucalypt woodland over low heath (Western Australian Herbarium 1998-). Given the vegetation and soil type located within the application area the vegetation proposed to be cleared is not likely to contain suitable habitat for these species. The proposed clearing consists of singular trees or small clumps of trees along a number of road reserves and properties, therefore the clearing proposed is not likely to have an impact on the conservation status of priority flora species.

The application area occurs within the known breeding range of Carnaby's cockatoo (*Calyptorhynchus latirostris*), Baudin's cockatoo (*Calyptorhynchus baudinii*) and Forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*) are also likely to occur within the local area (10 kilometre radius) (Department of Sustainability, Environment, Water, Population and Communities 2012). Carnaby's cockatoo mainly occur in uncleared or remnant native eucalypt woodlands, especially those that contain Salmon Gum (*Eucalyptus salmonophloia*) and Wandoo (*E. wandoo*), and in shrubland or kwongan heathland dominated by *Hakea*, *Dryandra*, *Banksia* and *Grevillea* species. Carnaby's cockatoo nest most commonly in smooth-barked Wandoo and Salmon Gum (Department of the Environment 2014c). A site inspection undertaken by the Department of Parks and Wildlife (2014) did not identify any trees with hollows suitable for breeding by the black cockatoo species. Given the applicant has avoided remnant vegetation where possible trees suitable to develop breeding habitat for the black cockatoo species will be located adjacent to the application area and no loss of significant breeding habitat is expected.

The vegetation proposed to be cleared is in a completely degraded to degraded (Keighery 1994) condition consists of singular trees or small clumps of trees and therefore is not likely to contain high biological diversity.

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

Methodology

References:

- Department of Environment (2014c)
- Department of Sustainability, Environment, Water, Population and Communities (2012)
- Keighery (1994)
- Shepherd et al (2001)
- Western Australian Herbarium (1998-)

GIS Databases:

- SAC Biodata sets - accessed April 2014

(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

Two fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act have been recorded within the local area (10 kilometre radius) being, Malleefowl (*Leipoa ocellata*) and Red-tailed Phascogale (*Phascogale calura*).

The Malleefowl are largely confined to arid and semi-arid woodland that is dominated by mallee eucalypts on sandy soils, with less than 430 millimetres of rainfall annually. The breeding habitat of the Malleefowl, within its home range, is characterised by light soil and an abundant leaf litter, which is used in the construction of nesting mounds (Department of the Environment 2014a). Given the vegetation type under application, suitable habitat for this species is not likely to be located within the application area.

The Red-tailed Phascogale preferred habitats are Allocasuarina woodlands with hollow-containing eucalypts (e.g. *Eucalyptus wandoo*) and *Gastrolobium* spp. The Red-tailed Phascogale prefers vegetation that is unburnt for a long time, which provides continuous canopy cover to assist their arboreal habits. Trees need to be of a sufficient age to provide hollows for nesting in limbs or logs, and grass trees need to have ample skirts to

provide cover (Department of the Environment 2014b). Given the vegetation proposed to be cleared includes scattered trees or small clumps of trees along a road reserve, suitable habitat for this species is not likely to be located within the application area.

The application area occurs within the known breeding range of Carnaby's cockatoo (*Calyptorhynchus latirostris*). Baudin's cockatoo (*Calyptorhynchus baudinii*) and Forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*) are also likely to occur within the local area (10 kilometre radius) (Department of Sustainability, Environment, Water, Population and Communities 2012). Carnaby's cockatoo mainly occurs in uncleared or remnant native eucalypt woodlands, especially those that contain Salmon Gum (*Eucalyptus salmonophloia*) and Wandoo (*E. wandoo*), and in shrubland or kwongan heathland dominated by *Hakea*, *Dryandra*, *Banksia* and *Grevillea* species. Carnaby's cockatoo species nest most commonly in smooth-barked Wandoo and Salmon Gum (Department of the Environment 2014c).

The mapped Beard vegetation association 1023 is described as 'Medium woodland; York gum, wandoo & salmon gum (*Eucalyptus salmonophloia*)' (Shepherd et al 2001). A site inspection undertaken by Parks and Wildlife (2014) did not identify any trees with hollows suitable for breeding by the black cockatoo species.

The alignment of the proposed road has been designed to intersect cleared farmland and avoid remnant vegetation within the designated road reserve where possible. Therefore suitable breeding habitat for the black cockatoo species will be located within this remnant vegetation located adjacent to the application area and no loss of significant breeding habitat is expected.

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

Methodology

References:

- Department of Environment (2014a)
- Department of Environment (2014b)
- Department of Environment (2014c)
- Department of Sustainability, Environment, Water, Population and Communities 2012
- Parks and Wildlife (2014)
- Shepherd et al (2001)

GIS Databases:

- SAC Biodata sets - accessed April 2014

(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

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

The closest record of rare flora is located approximately four kilometres east of the application area. This species grows in open wandoo woodland on the slopes of hills, in gravelly brown clayey sand (Brown et al 1998).

The second rare flora species is located approximately 4.3 kilometres east of the application area. This species grows in lateritic gravel and brown loam, amongst laterite on breakaways in open low wandoo woodland over common woolly bush and golden dryandra (Brown et al 1998).

The third rare flora species is located approximately 4.2 kilometres west of the application area. This species grows in white sand over laterite, in open woodlands of wandoo, marri and parrotbush.

The fourth rare flora species recorded within the local area (10 kilometre radius) inhabits sandy loam over gravel in heath on degraded road verges (Brown et al 1998).

Given the soil type and vegetation association located within the application area and that the proposed clearing consists of single trees or small clumps of trees along a number road reserves and properties, suitable habitat for the above rare flora species is not located within the application area.

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

Methodology

References:

- Brown et al (1998)

GIS Databases:

- SAC Biodata sets - accessed April 2014

(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 at variance to this Principle

No threatened ecological communities (TEC's) have been recorded within the local area (10 kilometre radius). The closest record being 'Wheatbelt region with extensive stands of Casuarina obesa and Melaleuca strobophylla' located approximately 37 kilometres east of the application area.

Given the distance to the closest TEC the clearing as proposed not is necessary for the maintenance of a TEC.

Therefore the clearing as proposed is not at variance to this principle.

Methodology GIS Databases:
- SAC Biodata sets - accessed April 2014

(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

The areas under application are 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 2013).

The vegetation under application is mapped as Beard Vegetation Association 1023 which has approximately 11 per cent of its Pre-European extent remaining within the Avon Wheatbelt bioregion (Government of Western Australia 2013).

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).

Digital imagery indicates that the local area (10 kilometre radius) surrounding the areas under application retain approximately 20 per cent vegetation cover.

Given the vegetation representation outlined above the application area is located within an extensively cleared area. However the vegetation proposed to be cleared is in a completely degraded to degraded (Keighery 1994), is not likely to comprise a high biological diversity or contain significant habitat for fauna. Therefore the vegetation proposed to be cleared is not considered to be a significant remnant.

Given the above the clearing proposed is not likely to be variance to this principle.

	Pre-European (ha)	Current Extent Remaining (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Avon Wheatbelt	9,517,110	1,778,407	19	10
Shire*				
Shire of Narrogin	161,816	31,667	20	27
Beard Vegetation Association in Bioregion*				
1023	1,522,676	166,817	11	10

*Government of Western Australia (2013)

Methodology References:
- Commonwealth of Australia, 2001
- Keighery (1994)
- Heddle et al, 1980
- Government of Western Australia, 2013

GIS Databases:
- NLWRA, Current Extent of Native 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 Proposal is at variance to this Principle

A watercourse intersects one of the areas under application within an unnamed road reserve.

Given the presence of this watercourse the vegetation proposed to be cleared is considered to be growing in association with a watercourse. However given the small area (approximately 0.14 hectares) proposed to be cleared around this watercourse the clearing proposed is not likely to have a significant impact on the environmental values of this watercourse.

Given the above the clearing proposed is at variance to this principle.

Methodology GIS Databases:
- Hydrology, 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

Three soil types have been recorded within the application area, Northcote et al 1960 - 1968 describes them as:

Ub90: Undulating to rolling country broken by ridges and hills: chief soils are hard neutral yellow mottled soils with red and yellow earths.

Va64: Plains--shallow flat-bottomed valley plains in which some salinity is usually evident: chief soils are hard alkaline and neutral yellow mottled soil.

Qb30: Rolling to hilly with some steep slopes; gneissic rock outcrops common; some lateritic mesas and buttes on drainage divides: chief soils are hard neutral red soils and acidic red soils.

The proposed clearing is for 1.48 hectares of native vegetation consisting of single trees or small clusters of trees along a number of road reserves and properties. Given the small and linear nature of the application areas, the clearing as proposed is not likely to cause appreciable land degradation.

Therefore the clearing as propose is not likely to be at variance to this principle.

Methodology References:
- Northcote et al (1960-1968)

GIS Databases:
- Soils, 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 Proposal is not likely to be at variance to this Principle

Numerous conservation areas are located within the local area (10 kilometre radius). The closest being an unnamed A Class nature reserve which is located approximately 3.9 kilometres south of the application area.

The application area consists of singular trees or small clumps of trees and therefore the vegetation proposed to be cleared is not likely to form a linkage for fauna movement between conservation areas within the local area (10 kilometre radius).

Given the distance to the closest nature reserve, the clearing as proposed is not likely to have an impact on the environmental values of a conservation area.

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

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 Proposal is not likely to be at variance to this Principle

A watercourse intersects one of the areas under application within an unnamed road reserve. Therefore the clearing as proposed may increase sedimentation into this watercourse. However, given the small area (approximately 0.14 hectares) proposed to be cleared surrounding this watercourse sedimentation will be minor and short term. The purpose of the proposed clearing is for constructing a road and therefore there are likely to be culverts in place to manage surface water flow. Therefore the clearing proposed is not likely to cause deterioration in the quality of surface water.

Groundwater salinity ranges between 14000-35000 milligrams per litre of Total Dissolved Solids (TDS) which is considered to be highly saline. The proposed clearing is for 1.48 hectares of native vegetation consisting of

single trees or small clusters of trees along a number of road reserves and properties. Given the small and linear nature of the application areas, the clearing as proposed is not likely to cause deterioration in the quality of underground water.

Given the above the clearing as proposed is not likely to be at variance to this principle.

Methodology GIS Databases:
-Groundwater Salinity
- Hydrology, 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 proposed clearing of 1.48 hectares of native vegetation consisting of single trees or clumps of trees over a number of road reserves and properties is not likely to cause or exacerbate the incidence or intensity of flooding.

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

Methodology

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

Comments

No submissions from the public have been received for the proposed clearing.

No Aboriginal Sites of Significance are located within the application area.

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.
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed April 2014
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed xx/xx/xxxx
- Department of Sustainability, Environment, Water, Population and Communities (2012) EPBC Act referral guidelines for three threatened black cockatoo species.
- Department of the Environment (2014a). Species Profile and Threats Database, Department of the Environment, Canberra. Available from: <http://www.environment.gov.au/sprat>. Accessed Accessed May 2014.
- Department of the Environment (2014b). Species Profile and Threats Database, Department of the Environment, Canberra. Available from: <http://www.environment.gov.au/sprat>. Accessed Accessed May 2014
- Department of the Environment (2014c). Species Profile and Threats Database, Department of the Environment, Canberra. Available from: <http://www.environment.gov.au/sprat>. Accessed May 2014
- Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. 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.
- Parks and Wildlife (2014) Regional Advice for Clearing Permit CPS 6041/1. Department of Parks and Wildlife. Western Australia DER Ref: A768431
- 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.