Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2582/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Archland Nominees Pty Ltd

1.3. Property details

Property: LOT 4 ON DIAGRAM 27183 (CHERRY TREE POOL 6395)

Local Government Area: Shire Of Kojonup

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
16		Mechanical Removal	Restoration

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: 4: Medium Woodland, Marri and Wandoo (Shepherd et al. 2007).	The proposal is to clear 16 ha of native vegetation in order to reduce the effects of rising salinity on local native vegetation and productive lands.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Description and condition of the vegetation under application was determined from site inspection (DEC 2008).
Heddle Vegetation Complex: Data deficient (Heddle et al. 1980).	The proposal involves the removal of dead stags, fallen branches and some native vegetation, to allow for the soil to be ripped and mounded and seedlings to be planted on the mound ridges where they will be protected from annual flooding by saline waters. The proposal also involves the installation of a W-drain to manage surface saline waters within the area under application (Submission 2008). During the site inspection the western area under application was observed to support E. occidentalis stags over sparse native rushes and herbs and the odd Melaleuca sp. and the central and eastern areas under application were observed to support E. occidentalis stags over herbs and chenopod shrubs (DEC 2008). During the site inspection the soils within the area under application were observed to be water logged with some large		

pools of water in the central area under application (DEC 2008).

Approximately 3.5 ha of the area under application on the western side is considered to be in degraded (Keighery 1994) condition.

Approximately 12.5 ha of the area under application, including the central and eastern areas, is considered to be in completely degraded (Keighery 1994) condition.

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 area under application occupies the pan of a larger perennial lake and is heavily affected by salinity. The site supports low floral diversity with Eucalyptus occidentalis stags over scattered native rushes, chenopod shrubs, herbs and the odd Melaleuca sp. and ranges in condition from degraded to completely degraded (Keighery 1994) condition (DEC 2008).

One priority flora species, being Eryngium ferox, is known to occur within the local area (50 km radius) and within the same vegetation association and landform type as the area under application (Western Australian Herbarium 1998). Given the condition of the vegetation within the area under application the site is not considered unlikely to support suitable habitat for this species.

In addition, given the condition of the vegetation within the area under application the area is considered to support poor quality habitat for indigenous fauna.

As the area under application supports low floral diversity and poor quality habitat for indigenous fauna the site is considered to support low biodiversity and clearing is not considered likely to be at variance to this principle.

Methodology

References:
- Western Australian Herbarium (1998)
- Keighery (1994)
- DEC (2008)

GIS Databases:
- Soils, Statewide DA 11/99
- Pre European Vegetation - DA 01/01
- SAC Bio datasets 13/08/2008

(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

During the site inspection the area under application was observed to support Eucalyptus occidentalis stags over scattered native rushes, chenopod shrubs, herbs and the odd Melaleuca sp. The site ranges in condition from degraded to completely degraded (Keighery 1994) condition (DEC 2008).

The area under application forms part of a larger remnant of Eucalyptus occidentalis / Wandoo woodland, ~ 169 ha, in size. During the site inspection this remnant, with the exception of the area under application, was observed to be in very good (Keighery 1994) condition (DEC 2008).

Twenty three indigenous fauna species of conservation significance have been recorded within a 50 km radius of the area under application.

During the site inspection the area under application was observed to support suitable habitat for the Hooded Plover and an unidentified species of plover was observed on site during the site inspection (DEC 2008). However given the condition of the area under application the site is not considered to be significant habitat for this species.

Other species of conservation significance are recorded within a 50 km radius of the area under application however given the landform type and vegetation structure, composition and condition within the area under

application it is considered unlikely that suitable habitat for these species would be present on site (Garnett and Crowley 2000; DEC 2006a; DEC 2006b; DEC 2006c; DEC 2006d; DEC 2006e; DEC 2006f; DEC 2006g).

Given the area under application is not considered likely to support significant habitat for fauna indigenous to Western Australia, clearing as proposed is not considered likely to be at variance to this principle.

Methodology

References:
- Garnett and Crowley (2000)
- Keighery (1994)
- DEC (2006a)
- DEC (2006b)
- DEC (2006c)
- DEC (2006d)
- DEC (2006e)
- DEC (2006f)
- DEC (2006g)
- DEC (2008)

GIS Databases:
- SAC Bio datasets 13/08/2008
- Kojonup 50cm Orthomosaic - Landgate 2006
- Topographic contours statewide - DOLA and ARMY 12/09/02
- NLWRA, Current Extent of Native Vegetation 20 Jan 2001

(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

Twenty species of rare flora are known to occur within a 50 km radius of the area under application. The closest known record of rare flora is Verticordia fimbrilepis subsp. fimbrilepis, located ~ 7.3 km from the area under application.

The area under application supports Eucalyptus occidentalis stags over scattered native rushes, chenopod shrubs, herbs and the odd Melaleuca sp. Soils on site range from brown surface clays with small amounts of fine red granite gravel over yellow sandy clays in the central and eastern side of the area under application to brown clays over laterite in the western side of the area under application (DEC 2008). Soils across the area under application were observed to be waterlogged with central areas of the application site supporting shallow surface water (DEC 2008).

Given the vegetation association, soils and land form features present within the area under application the site is considered unlikely to support suitable habitat for any of the above species of rare flora (Western Australian Herbarium 1998). Given this clearing as proposed is not considered likely to be at variance to this principle.

Methodology

References:
- Western Australian Herbarium (1998)
- DEC (2008)

GIS Databases:
- SAC Bio datasets 13/08/2008
- Soils, Statewide DA 11/99
- Pre European Vegetation - DA 01/01

(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

No Threatened Ecological Communities (TEC) are recorded within a 50 km radius of the area under application.

The nearest TEC to the area under application is an occurrence of 'perched wetlands of the wheatbelt region with extensive stands of Casuarina obesa and Melaleuca stobophylla' which occurs 96 km north of the area under application.

It is therefore unlikely that the vegetation proposed to be cleared comprises the whole, or a part of, or is necessary for the maintenance of a TEC.

Methodology

GIS Databases:
- SAC Bio datasets 13/08/2008

(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 at variance to this Principle

The area of vegetation under application is associated with Beard vegetation association 4 (Shepherd et.al. 2007).

The State government is committed to the National Objectives and Targets for Biodiversity Conservation, which includes targets that prevent the clearing of ecological communities with an extent below 30% of that present pre-1750 (Commonwealth of Australia 2001). Beards vegetation association 4 is below the target of 30% retention of pre-European extent, having ~23.3% pre-European extent remaining.

Within a 10 km radius of the area under application ~2% of native vegetation remains.

Given the extent of native vegetation remaining locally (within a 10km radius) and within the mapped Beard vegetation association, it is considered that the area under application forms part of a significant remnant in an area that has been extensively cleared and is thus considered to be at variance to this principle.

Given the area under application forms part of a significant remnant in an area that has been extensively cleared a condition for revegetation and fencing has been placed on this permit to ensure this remnant is not further degraded.

	Pre-European area (ha)	Current extent (ha)	Remaining %	% in reserves/DEC-managed land
Bioregion:				
Jarrah Forest *	4,506,654	2,405,331	53.4	39.2
Shire of Kojonup *	2,931,19.5	43,005.7	14.7	0.7
Local Area (10 km radius)	314,15.9	6,947	2	-
Heddle vegetation complex				
Data deficient	-	-	-	-
Beard vegetation associations *				
4	1,054,280	245,945	23.3	4.4

* (Shepherd et.al. 2007)

Methodology

References:
- Shepherd et.al. (2007)
- Commonwealth of Australia (2001)

GIS Databases:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- NLWRA, Current Extent of Native Vegetation 20 Jan 2001
- Pre European Vegetation - DA 01/01
- Kojonup 50cm Orthomosaic - Landgate 2006

(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

The area under application forms the northern part of a larger perennial lake.

The area under application is heavily affected by salinisation and supports stags of Eucalyptus occidentalis over scattered native rushes, chenopod shrubs, herbs and Melaleuca sp. (DEC 2008).

Despite the vegetation condition the area under application is considered to support vegetation growing in a wetland thus clearing as proposed is considered to be at variance to this principle.

In order to ensure that further degradation of this lake does not occur a condition for revegetation and fencing has been placed on this permit.

Methodology

References:
- DEC (2008)

GIS Databases:
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06
- Topographic contours statewide - DOLA and ARMY 12/09/02

(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 area under application lies within soils associated with low hilly dissected lateritic plateau with gently undulating ridge crests and narrow incised valleys. Chief soils are hard yellow mottled soils containing moderate to large amounts of ironstone gravel (Northcote et al. 1960-68).

The area under application supports soils ranging from brown surface clays with small amounts of fine red granite gravel over yellow sandy clays in the central and eastern side of the area under application to brown clays over laterite in the western side of the area under application (DEC 2008). These soils are considered to have a moderate risk of water born erosion with predicted partial break up of soils into smaller particulates when inundated (DAFWA 2008).

However given the area under application is located in the pan of a perennial lake and has a low gradient clearing is not considered likely to result in appreciable land degradation and is thus not considered likely to be at variance to this principle.

Methodology

References:
- Northcote et al. (1960-68)
- DEC (2008)
- DAFWA (2008)

GIS Databases:
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

(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 at variance to this Principle

The closest conservation reserve to the area under application is an un-named nature reserve ~3.7 km west of the area under application. In addition Birdwood Nature Reserve and another un-named nature reserve are located 7.6 km and 11.6 km east of the area under application respectively.

Between the area under application and the above mentioned nature reserves the landscape has been heavily cleared and fragmented and the area under application does not form part of a significant corridor of native vegetation connecting any local conservation area.

The area under application forms part of a larger remnant ~169 ha in size which is considered to form a significant stepping stone of native vegetation between the un-named nature reserve to the west and Birdwood Nature Reserve to the east.

Given the area under application forms part of a significant stepping stone of native vegetation in an area the has been highly cleared the proposed clearing is considered to be at variance to this principle.

In order to ensure that further degradation of this significant remnant does not occur a condition for revegetation and fencing has been placed on this permit.

Methodology

References:
- DEC (2008)

GIS Databases:
- Kojonup 50cm Orthomosaic - Landgate 2006
- CALM Managed Lands and Waters - CALM 01/06/05

(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 may be at variance to this Principle

The area under application forms the northern part of a larger perennial lake. The southern area of this lake is considered to be in very good (Keighery 1994) condition and supports healthy E. occidentalis and Wandoo over reeds, rushes, native grasses, and herbs and sparse Melaleuca sp. (DEC 2008).

Soils on site have a moderate risk of water erosion with partial disassociation of soils into smaller particulates when exposed to inundation (DAFWA 2008).

The northern extent of the area under application is approximately 10 m from a minor non-perennial watercourse which is a tributary of the Beaufort River.

Given the soils present on site, that the area under application is continuous with a larger lake system and is connected to a minor perennial watercourse to the north it is considered the clearing may result in

sedimentation in and reduced water quality in these two surface water bodies. Thus clearing as proposed may be at variance to this principle.

Methodology References:
- DAFWA (2008)
- DEC (2008)
- Keighery (1994)

GIS Databases:
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

(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 area under application supports Eucalyptus occidentalis stags over the odd Melaleuca sp. and scattered shallow rooted native rushes, chenopod shrubs and herbs. The site ranges in condition from degraded to completely degraded (Keighery 1994) condition (DEC 2008).

Given the shallow rooted nature of vegetation dominating the area under application and the sites condition it is considered that clearing as proposed is not likely to cause, or exacerbate, the incidence of flooding. Thus clearing as proposed is not considered likely to be at variance to this principle.

Methodology References:
- DEC (2008)
- Keighery (2008)

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

Comments

Submission (2008b) states support for the proposal for the following reasons:
- the proponent Eric Arthur Wright has undertaken significant works to improve his farm 'Pineview' and Eric continues to revegetate the property with perennial species to improve productivity, land and water conditions and provide native habitat;
- the proposed removal of dead trees and associated revegetation is aimed at containing and minimising salt spread;
- if successful this project will enable research and development of management methods for reclaiming salt affected lands and especially salt affected riparian vegetation.

Submission (2008c) states that:
- although no threatened flora, fauna or ecological communities occur in the vicinity of the area under application the general area is considered to be an important area for biodiversity conservation;
- If a do nothing approach is taken in this area further vegetation decline can be expected;
- If the site is suited to revegetation then with suitable planting techniques, ripping, mounding and planting of local endemic salt tolerant tree species with the aim of maintaining biodiversity values, then it is likely that an improvement in the general condition at this site could be achieved, and;
- the site should be fenced and stock prevented from grazing this area.

Methodology References:
- Submission (2008b)
- Submission (2008c)

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing is considered to be at variance to principles (e), (f) and (h) and may be at variance to principle (i).

5. References

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

DAFWA. (2008). Application for clearing permit CPS 2582/1 - Lot 4 on Diagram 27183 - Archland Pty. Ltd. TRIM Ref. DOC63913.

DEC (2008) Site Inspection Report for Clearing Permit Application CPS 2582/1, Lot 4 Watts Road, Kojonup. Site inspection undertaken 09/09/2008. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC64506).

DEC. (2006a). NatureBase - Fauna Species Profile: Brush-tailed Phascogale. Accessed at http://www.naturebase.net/content/view/840/1288/. Accessed 11/09/2008. Department of Environment and Conservation, Western Australia.
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DEC. (2006d). NatureBase - Fauna Species Profile: Water Rat. Accessed at http://www.naturebase.net/content/view/840/1288/. Accessed 11/09/2008. Department of Environment and Conservation, Western Australia.
DEC. (2006e). NatureBase - Fauna Species Profile: Chuditch. Accessed at http://www.naturebase.net/content/view/840/1288/. Accessed 11/09/2008. Department of Environment and Conservation, Western Australia.
DEC. (2006f). NatureBase - Fauna Species Profile: Numbat. Accessed at http://www.naturebase.net/content/view/840/1288/. Accessed 11/09/2008. Department of Environment and Conservation, Western Australia.
DEC. (2006g). NatureBase - Fauna Species Profile: Quokka. Accessed at http://www.naturebase.net/content/view/840/1288/. Accessed 11/09/2008. Department of Environment and Conservation, Western Australia.
Garnett, S.T. and Crowley G.M. (2000). The Action Plan for Australian Birds 2000. Canberra, Environment Australia.
Heddle, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
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.
Shepherd (2007). Adapted from: 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. Includes subsequent updates for 2007 from Vegetation Extent dataset ANZWA1050000124.
Submission. (2008). Description of proposed clearing CPS 2582/1 provided by Eric Arthur Wright on 14 August 2008. TRIM Ref. DOC60288.
Submission. (2008b). CPS 2582 Application to clear 16 ha of native vegetation - Eric Arthur Wright, Lot 4 Watts Road, Kojonup: comment on proposal from Kojonup Land Care District Committee. TRIM Ref. DOC. 64416.
Submission. (2008c). CPS 2582 Application to clear 16 ha of native vegetation - Eric Arthur Wright, Lot 4 Watts Road, Kojonup: comment on proposal from DEC Great Southern District. TRIM Ref. DOC59777.
Western Australian Herbarium (1998-). FloraBase - The Western Australian Flora. Department of Environment and Conservation. http://florabase.calm.wa.gov.au/ (Accessed 11 September 2008).

6. 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)