GOVERNMENT OF WESTERN AUSTRALIA

Clearing Permit Decision Report

Government of Western Australia
Department of Environment Regulation

1. Application details

1.1. Permit application details

Permit application No.: 4889/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: **Finn Skov Henriksen, Rohan Wilathgamuwa Stephens, Don Francis Wilathgamuwa & Harry Roy Hopes**

1.3. Property details

Property: LOT 801 ON PLAN 49675 (Lot No. 801 MORRISSEY BULLSBROOK 6084)
Local Government Area: City of Swan
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Refuse
Decision Date: 12 September 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: 1020 - Medium forest; jarrah-marri / Medium woodland; marri-wandoo (Shepherd et al. 2001). Heddle Vegetation Complex: Reagan Complex - Vegetation ranges from low open woodland of Banksia species Eucalyptus todtiana (Pricklybark) to closed heath depending on the depth of soil (Heddle et al. 1980) Mattiske Vegetation Complex: Re (Reagan) - Mixture of low open woodland of Banksia spp.-Eucalyptus todtiana to closed heath of Myrtaceae-Proteaceae spp. depending on depth of soils on escarpment (Mattiske and Havel 1998).	The proposal is for clearing of 11.5 hectares for the purpose of sand extraction within Lot 801 on Deposited Plan 49675, Bullsbrook, in the City of Swan.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994). To Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994).	Vegetation description and condition was determined through a DEC site inspection (DEC 2012). The area under application is parkland cleared, consisting of open areas with non-native pasture, isolated paddock trees and stands of native overstorey species including large, mature trees and younger regrowth. There is little to no native understorey (DEC 2012) Vegetation predominantly comprises Eucalyptus marginata (jarrah) and Corymbia calophylla (marri) (DEC 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 11.5 hectares of vegetation in degraded to completely degraded (Keighery 1994) condition for the purpose of sand extraction.

There are numerous records of priority flora within the local area (10 kilometre radius), the closest being a Priority 3 species located 1.5 kilometres west of the proposed clearing area within a Bush Forever site. Given the condition of the vegetation under application and the level of disturbance from previous clearing and current grazing it is unlikely to support priority flora.

The local area (10 kilometre radius) is approximately 30 percent vegetated, with approximately half of this vegetation held in conservation reserves.

The vegetation under application supports mature trees that may provide feeding and breeding habitat for

threatened black cockatoo species. The Department of Environment and Conservation requested the applicant provide additional information in order to determine the impacts of the proposed clearing on these species. The applicant has not provided this information.

The vegetation under application contributes to a linkage of native vegetation between conservation areas (Bush Forever sites) to the southwest and northeast of the property that are separated by approximately 1.6 kilometres of parkland cleared agricultural land. Despite the lack of understorey, the application area has a canopy cover that is relatively continuous with the vegetation in this linkage and may be valuable to fauna moving between the Bush Forever sites. The proposed clearing will reduce the continuity of this linkage which may reduce its effectiveness.

The application area is in a relatively high (800 millimetre) rainfall area, where soil disturbance while undertaking clearing activities poses a high risk of introducing or spreading dieback and weeds to the surrounding environment.

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

Methodology

References:
Keighery 1994
GIS Databases:
- Bush Forever sites
- NLWRA, Current Extent of Native Vegetation
- Perth Metropolitan North 20cm Orthomosaic - Landgate 2009
- Rainfall, Mean Annual
- SAC Biodatasets

(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 may be at variance to this Principle

There are records of five species of threatened native fauna (DEC 2007-) within the local area (10 kilometre radius):

- Carnaby's cockatoo (Calyptorhynchus latirostris) - Endangered, Wildlife Conservation Act 1950; Endangered, Environment Protection and Biodiversity Conservation Act 1999
- Chuditch (Dasyurus geoffroii)
- Native bee (Leioproctus douglasiellus)
- Western swamp turtle (Pseudomydura umbrina)
- Australasian bittern (Botaurus poiciloptilus)

While the vegetation under application is in degraded to completely degraded (Keighery 1994) condition (DEC 2012), the level of understorey disturbance does not detract from the habitat value of the overstorey to avian fauna species. The vegetation proposed to be cleared includes some large, mature trees, some of which were observed to support hollows (DEC 2012) or are considered to have the potential to develop hollows.

The application area is within the known foraging and breeding range for the Carnaby's cockatoo (DSEWPC 2011). The application area is also within the range of the Forest red-tailed black cockatoo (Calyptorhynchus banksii naso) which is listed as Vulnerable under the state Wildlife Conservation Act 1950 and federal Environment Protection and Biodiversity Conservation Act 1999 (DSEWPC 2011). Both species breed in hollows in very long-lived trees (DSEWPC 2011) and feed on seeds of eucalyptus species. Therefore the proposed clearing may include significant habitat for the Carnaby's cockatoo and Forest red-tailed black cockatoo. The Department of Environment and Conservation requested the applicant provide additional information in order to determine the impacts of the proposed clearing on these species. The applicant has not provided this information.

Considering the condition of the vegetation under application it is not considered to represent significant habitat for other native fauna.

The vegetation under application contributes to a linkage of native vegetation between conservation areas to the southwest and northeast of the property that are separated by approximately 1.6 kilometres of parkland cleared agricultural land. Despite the lack of understorey, the application area has a canopy cover that is relatively continuous with the vegetation in this linkage and may be valuable to fauna moving between the Bush Forever sites. The proposed clearing will reduce the continuity of this linkage which may reduce its effectiveness. Staged clearing and rehabilitation of cleared areas once extraction is completed will minimise these impacts.

Considering the above, the proposed clearing may be at variance with this principle.

Methodology

References :
DEC 2007-
DEC 2012

DSEWPC 2011
Keighery 1994
GIS Databases:
- Bush Forever sites
- NLWRA, Current Extent of Native Vegetation
- Perth Metropolitan North 20cm Orthomosaic - Landgate 2009
- Rainfall, Mean Annual
- SAC Biodatasets

(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 known records of declared rare flora are located 1.4 kilometres east-northeast and 1. 4 kilometres northwest of the application area. The recorded locations of these species are within nearby conservation areas.

The vegetation under application is in degraded to completely degraded (Keighery 1994) condition and does not contain native understorey or groundcover (DEC 2012).

Given this, the application area is unlikely to support suitable habitat for rare flora and is not likely to be at variance with this principle.

Methodology

References:
DEC 2012
Keighery 1994
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 records of four threatened ecological communities (TEC) in the local area (10 kilometre radius):

- Floristic community type (FCT) SCP07: herb rich saline shrublands in clay pans (Vulnerable) 1.6 kilometres northwest
- FCT SCP3c: Eucalyptus calophylla - Xanothorrhoae preissii woodlands and shrubands, Swan Coastal Plain (Critically Endangered) 1.7 kilometres southwest
- FCT SCP20b: Banksia attenuata and/or Eucalyptus marginata woodlands (Endangered) 2.1 kilometres southeast
- Muchea Limestone: Shrublands and woodlands on Muchea limestone (Endangered) 2.4 kilometres southwest of the area under application

Given that the vegetation under application is in degraded to completely degraded (Keighery 1994) condition (DEC 2012) and occurs on acidic yellow soils containing ironstone gravel (Northcote et al. 1960-68), it is unlikely that the area would contain or be necessary for the maintenance of a threatened ecological community.

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

Methodology

References:
DEC 2012
Keighery 1994
Northcote et al. 1960-68
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 may be at variance to this Principle

The local area (10 kilometre radius) is approximately 70 percent cleared, predominantly for agricultural uses. Approximately half of the remaining native vegetation in the local area is held in conservation reserves.

The National Objectives and Targets for Biodiversity Conservation include a target that prevents the clearance of ecological communities with an extent below 30 per cent of that present pre-European settlement (Commonwealth of Australia 2001). While the mapped vegetation complexes associated with the area under application are near or below the State Government's target of 30 percent retention, given the degraded to completely degraded (Keighery 1994) condition of the vegetation (DEC 2012), it is not considered to be representative of the mapped vegetation types.

The application area is south of an approximately 5 hectare remnant of native vegetation on gravelly soils that is considered to be representative of the Reagan vegetation type (City of Swan 2012) which is highly cleared and poorly represented in conservation areas (Shepherd et al. 2001). While the application area is not considered to support this vegetation type, the proposed clearing may have secondary impacts to this vegetation from increased vehicle access and edge effects.

Despite the condition of the vegetation under application, it supports mature trees that may provide feeding and breeding habitat for threatened black cockatoo species.

The canopy cover of the vegetation under application contributes to the linkage between nearby conservation reserves and the proposed clearing may reduce the value of this linkage.

Considering the above, the vegetation under application may be significant as a remnant in a highly cleared landscape and the proposed clearing may be at variance to this principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Swan Coastal Plain	1 501 209	587 889	39	33
Shire*				
City of Swan	104 248	45 327	43	28
Beard Vegetation Association in Bioregion*				
1020	5 296	1 724	33	6
Heddle Vegetation Complex **				
Reagan Complex	9 096	3 418	38	3
Mattiske Vegetation Complex ***				
Re (Reagan)	2 329	567	24	1

* Government of Western Australia 2012
** Heddle et al. 1980
*** Mattiske and Havel 1998

Methodology

References:
City of Swan 2012
Commonwealth of Australia 2001
DEC 2012
Government of Western Australia 2012
Heddle et al. 1980
Keighery1994
Mattiske and Havel 1998
Northcote et al. 1960-68
GIS Databases:
- Bush Forever sites
- Heddle Vegetation Complexes
- Mattiske Vegetation Complexes
- NLWRA, Current Extent of Native Vegetation
- Perth Metropolitan North 20cm Orthomosaic - Landgate 2009
- Pre-European Vegetation
- SAC Biodatasets

(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 at variance to this Principle

There is a minor watercourse located approximately 500 metres south of application area. This watercourse drains into Ellen Brook, approximately 2.3 kilometres to the west.

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

Methodology

GIS Databases:
- Hydrography, linear

- Perth Metropolitan North 20cm Orthomosaic - Landgate 2009

(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 chief soils within the area under application are sandy acidic yellow mottled soils containing ironstone gravel associated with leached soils and hard acidic yellow soils containing ironstone gravel associated with brown sands (Northcote et al. 1960-68). The main land degradation risk with the identified soil types is water erosion and phosphorous export (Department of Agriculture 2005).

Given the limited amount of vegetation within the area under application and that is in degraded to completely degraded (Keighery 1994) condition (DEC 2012), it is unlikely that the proposed clearing would cause appreciable land degradation and therefore it is not likely to be at variance to this principle.

Methodology

References :
DEC 2012
Department of Agriculture 2005
Keighery 1994
Northcote et al. 1960-68
GIS Databases:
- Perth Metropolitan North 20cm Orthomosaic - Landgate 2009
- 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 may be at variance to this Principle

There are numerous conservation areas within 10 kilometres of the application area.

The closest are Bush Forever site 291 (Jenkins Road South Bushland, Bullsbrook) approximately 300 metres northeast; 292 Bush Forever site 292 (Bullsbrook Nature Reserve and Adjacent Bushland, Bullsbrook) approximately 600 metres west and Bush Forever site 294 (Pearce Aerodrome and Adjacent Bushland, Bullsbrook) approximately 700 metres southwest of the area under application.

The vegetation under application contributes to a linkage of native vegetation between Bush Forever sites 291 and 294 which are separated by approximately 1.6 kilometres of parkland cleared agricultural land. Despite the lack of understorey, the application area has a canopy cover that is relatively continuous with the vegetation in this linkage and may be valuable to fauna moving between the Bush Forever sites. The proposed clearing will reduce the continuity of this linkage which may reduce its effectiveness.

Considering the above, the proposed clearing may be at variance with this principle. Staged clearing and rehabilitation of cleared areas once extraction is completed will minimise these impacts.

Methodology

GIS Databases:
- Bush Forever sites
- DEC Managed Lands
- Perth Metropolitan North 20cm Orthomosaic - Landgate 2009

(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 is a minor watercourse located approximately 500 metres south of application area. This watercourse drains into Ellen Brook, approximately 2.3 kilometres to the west.

Considering the distance to watercourses and that the application area and surrounding properties are parkland cleared for agriculture, the proposed clearing is not likely to result in an appreciable change to water quality and is not likely to be at variance to this principle.

Methodology

GIS Databases:
- Hydrography, linear
- Perth Metropolitan North 20cm Orthomosaic - Landgate 2009

(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 is parkland cleared for agriculture and supports deep yellow sandy soils (DEC 2012). Considering this, the limited clearing proposed is not likely to impact upon the incidence or intensity of flooding.

Methodology References:
DEC 2012
GIS Databases:
- Perth Metropolitan North 20cm Orthomosaic - Landgate 2009
- Soils, Statewide

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

Comments

The application is to clear 11.5 hectares of degraded to completely degraded (Keighery 1994) condition native vegetation for sand extraction. A clearing permit previously granted over the application area for this purpose (CPS 2809/1) expired in January 2011, without any clearing having been conducted (Land Insights 2012).

The Department of Environment and Conservation sent a letter to the applicant regarding the potential environmental impacts of the proposed clearing and requested that the applicant provide additional information regarding the impact of the proposed clearing on black cockatoo species. The applicant was also requested to address planning matters. The applicant has not provided this additional information and Department of Environment Regulation has been unable to contact the applicant.

The applicant advised that expansion of the proposed sand mining development over the adjacent, southern portion of the property may be considered at some stage in the future (DEC 2012).

The area under application is zoned Rural under the Metropolitan Regional Scheme and General Rural under the City of Swan Town Planning Scheme.

Development approval for sand extraction within the application area was given by the Western Australian Planning Commission (WAPC) on 1 July 2008. This approval is due to expire 2 July 2013, however the approval states that if development is not substantially commenced within two years of approval, then the approval shall lapse and be of no further effect. The Department of Environment and Conservation considers the development has not been substantially commenced.

The City of Swan advised it does not oppose the proposed clearing that is in accordance with the WAPC approval, but made the following comment:

- The area of "Reagan Complex" remnant vegetation to the north of the application area should be fenced off and vehicles prevented from traversing through it.
- Each stage of development should be progressively cleared as needed.
- At the completion of each stage of excavation, the land is to be reinstated and revegetated in accordance with an approved Rehabilitation and Revegetation Plan to the specifications of the City of Swan and the satisfaction of the WAPC on advice from the DEC.
- Clearing should be undertaken in stages, and the pit revegetated in stages, as per the staging program provided (Land Insights, 2012).
- The carrying on of the development must not cause a dust nuisance to neighbours. Where appropriate, such measures as installation of sprinklers, use of water tanks, mulching or other land management systems should be installed or implemented to prevent or control dust nuisance, and such measures shall be installed or implemented within the time and in the manner directed by the City's Principal Environmental Health Officer if it is considered that a dust nuisance exists.
- The noise generated by activities on-site, including machinery motors or vehicles is not to exceed the levels as set out under the Environmental Protection (Noise) Regulations 1997. All development works are to be carried out in accordance with control of noise practices set out in Section 6 f AS 2436-1981 or the equivalent current Australian Standard. No works shall commence prior to 7:00am without the City's approval.

(City of Swan 2012).

The City of Swan advised it has received an application for an extractive industry licence from the applicant (City of Swan 2012).

The North Swan Land Care District Committee (NSLCDC) advised that it would ordinarily oppose the removal of native vegetation within the Ellen Brook Catchment, however considering the clearing has been previously approved it will not oppose the proposed clearing if the conditions of the previous permit were complied with (NSLCDC 2012). The applicant has advised that no clearing was undertaken under Clearing Permit 2809/1 (Land Insights 2012). The NSLCDC (2012) advised that nearby reserves have been recently mapped and treated for dieback and that the sand proposed to be extracted may be contaminated with dieback and therefore the applicant should advise clients accordingly.

The application area is within the Swan surface water and groundwater areas proclaimed under the Rights in Water and Irrigation Act 1914. The Department of Water assessed the proposal with no comment (DoW 2012).

The application area is within the mapped boundaries of an Aboriginal Site of Significance associated with the Ellen Brook. The applicant is advised to liaise with the Department of Indigenous Affairs regarding obligations under the Aboriginal Heritage Act 1972.

A public submission was received in objection to the proposed clearing on the grounds that 'There must be cleared degraded areas where clean sand can be found without having to clear vegetated areas' (Submission 2012). In addition, 'There have been 921 collections of plants in the Bullsbrook area and 1471 species of flora in the City of Swan, of which 14 are threatened and a further 70 are priority species' (Submission 2012). These concerns are addressed above and in the clearing principles.

Methodology

References:
City of Swan 2012
DEC 2012
DoW 2012
Keighery 1994
Land Insights 2012
NSLCDC 2012
Submission 2012
GIS Databases:
- Aboriginal Sites of Significance
- RIWI Act areas
- Metrolpolitian Regional Scheme Zones
-Town Planning Scheme Zones

4. References

City of Swan (2012) Direct Interest Submission - Clearing Permit Application 4889/1. Received 04/04/2012. City of Swan, Western Australia. DEC Ref: A491024; A491228

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 02/04/2012.

Department of Agriculture (2005) AgMaps Land Profiler CD-rom for the Shires of Boddington, Kwinana, Mandurah, Murray, Rockingham and Serpentine-Jarrahdale. Department of Agriculture, Western Australia. ISSN: 1448-235X.

DoW (2012) Direct Interest Submission - Clearing Permit Application 4889/1. Received 14/03/2012. Department of Water, Western Australia. DEC Ref: A483169

DSEWPC (2011) Draft Referral Guidelines for three threatened black cockatoo species, July 2011. Department of Sustainability, Environment, Water, Populations and Communities. Commonwealth of Australia.

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.

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.

Land Insights (2012) Application For Clearing Permit Cps 4889/1 And Supporting Information - Lot 801 Morrissey Road, Bullsbrook. Mt Lawley, Western Australia. DEC Ref: A475385

Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment 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.

NSLCDC (2012) Direct Interest Submission - Clearing Permit Application 4889/1. Received 27/03/2012. North Swan Land Conservation Distrct Committee, Western Australia. DEC Ref: A487675

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.

Submission (2012) Public Submission. Received 22/03/2012. DEC Ref: A486468

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)