Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 1552/1

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Wiluna

1.3. Property details

Property: LOT 4 ON PLAN 238538 LAKE CARNEGIE 6370

Local Government Area: Shire Of Wiluna

Colloquial name: Wongawol Station

1.4. Application

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

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 18: Low woodland; mulga (Acacia aneura). (Hopkins et al. 2001; Shepherd et al. 2001)	The areas under application are located within Lot 4 (Wongawol Station), a 125,980ha pastoral property, located approximately 200km north-east of Wiluna. The three areas under application are for the purpose of shallow pits (100m x 100m) for gravel extraction, to facilitate the resheeting of degraded sections of Wongawal Road-Carnegie Road. The vegetation proposed to be cleared is described as predominantly bunched kerosene grass (Aristida contorta) (DEC 2006, TRIM Ref ED1443) with sparse mulga (Acacia aneura) on stony/gravelly soils (Application 2006, TRIM Ref DOC4497).	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The assessment of the condition of the native vegetation has resulted from information and photographs provided by the applicant (Application 2006, TRIM Ref DOC4497).

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 areas under application are located within Lot 4 (Wongawol Station), a pastoral property covering an area of approximately 125,980ha, which is subject to stock grazing. Further, the vegetation under application is predominantly native grasslands (Aristida contorta) (DEC 2006, TRIM Ref ED1443) with sparse mulga (Acacia aneura) in a good condition.

Given the proposed clearing consists of three relatively small areas (1ha each), comprising a limited diversity of species, it is considered unlikely the area under application comprises a high level of biological diversity.

Methodology

GIS database:
- Cadastre - DLI 1/12/05

(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

The areas under application are located within Lot 4 (Wongawol Station), an area covering approximately 125,980ha, with extensive, well-represented habitat that will offset habitat loss arising from the proposed clearing. Further, the proposed clearing consists of three relatively small areas (1ha each), with the vegetation under application being predominantly native grasslands (Aristida contorta) (DEC 2006, TRIM Ref ED1443) with sparse mulga (Acacia aneura) in a good condition.

It is therefore considered that the vegetation in this area is not likely to be necessary for the maintenance of significant habitat for fauna indigenous to Western Australia and furthermore, comparable habitat is likely to be found in the surrounding areas. Therefore the clearing is not likely to be at variance to this principle.

Methodology

GIS database:
- Cadastre - DLI 1/12/05

(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

There are no known records of Declared Rare Flora (DRF) or Priority Flora in the local area (100km radius). The nearest recorded DRF is located approximately 190km north-west from the proposed area and the nearest known recorded Priority Flora is located approximately 140km north-west from the proposed area.

Given the above, it is unlikely that the vegetation proposed to be cleared includes or is necessary for the continued existence of rare flora.

Methodology

GIS database:
- Declared Rare and Priority Flora List - CALM 01/07/05
- Environmentally Sensitive Areas - DOE 08/03/05

(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 known records of Threatened Ecological Communities (TECs) within close proximity of the area under application with the nearest recorded TEC located approximately 300km south-west from the proposed area. It is therefore unlikely that the vegetation proposed to be cleared comprises the whole or part of or is necessary for the maintenance of a TEC.

Methodology

GIS Databases:
- Threatened Ecological Community Database - CALM 12/04/05
- Environmentally Sensitive Areas - DOE 08/03/05

(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 at variance to this Principle

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents the clearance of ecological communities with an extent below 30% of that present Pre-European settlement (Department of Natural Resources and Environment 2002).
The Vegetation Complex in the area under application is above the recommended minimum of 30% representation.

	Pre-European (ha)*	Current extent (ha)*	Remaining (%)*	Conservation** status	% In reserves/CALM managed land
IBRA Bioregions - Gascoyne	18 169 908	18 169 908	100.0	Least Concern	
Shire of Wiluna	No information available				
Vegetation type: Beard: Unit 18	24 675 970	24 659 110	99.9	Least Concern	2.0

* (Shepherd et al. 2001)
** (Department of Natural Resources and Environment 2002)

Given the proposed clearing of 3ha is relatively small compared to the area of remnant vegetation remaining within the Region and there is 99.9% (Beard 18) (Shepherd et al. 2001) of native vegetation remaining, the vegetation proposed to be cleared is not significant as a remnant of native vegetation in the surrounding area.

However, it is noted that the JANIS Forests Criteria (1997) of 15% representation in secure tenure for Beard Unit 18 (2.0%) has not been met.

Methodology Department of Natural Resources and Environment (2002)
Hopkins et al. (2001)
Shepherd et al. (2001)
JANIS Forests Criteria (1997)
GIS Databases:
- Pre-European Vegetation - DA 01/01
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00

(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**
The proposed clearing consists of three small areas (1ha each) that total 3ha. The areas to be cleared are for gravel extraction, to facilitate the resheeting of degraded sections of Wongawal Road-Carnegie Road. The areas under application are in a semi arid environment with no permanent watercourses or wetlands. The surrounding minor perennial watercourses of Kulele Creek and Thurraguddy Creek flow into the Lake Carnegie System, an ANCA wetland, which is over 5km east of the areas under application.

From the photographs provided with the application and from the descriptions of the Beard vegetation association it is considered that the vegetation within the areas under application is not considered to be growing in, or in association with a watercourse.

Methodology GIS Databases:
- ANCA wetlands - CALM 08/01
- Hydrography, linear - DOE 01/02/04

(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 landscape of the areas under application and surrounds can be described as undulating pediments on sandstone, shale, and dolomite with some dolerite dykes; much rock outcrop; stony and gravelly pavements are common. The chief soils are shallow loams and sandy loams (DAWA 2004).

Given the relatively small size of the three areas under application (1ha each), and the occurrence of rock outcrops and gravelly pavements it is considered unlikely that the proposed clearing will cause appreciable land degradation.

To minimise long term land degradation associated with gravel extraction a condition has been imposed requiring the gravel pit floor to be contour ripped to aid revegetation on completion of the extraction.

Methodology DAWA (2004)
GIS databases:
- Soils, Statewide - DA 11/99

(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 at variance to this Principle**
There are no conservation areas within close proximity (<100km) of the areas under application with the nearest conservation areas being CALM Managed Lands, located approximately 165km south south-east (De La Poer Range Nature Reserve) and 195km south-west (Wanjarri Nature Reserve) of the proposed clearing. Given the distance between the areas under application and the CALM Managed Lands, the proposed clearing is not likely to have an impact on the environmental values of the surrounding conservation areas.

Methodology GIS Databases:
-CALM Managed Lands and Waters

(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 at variance to this Principle**
With an average annual rainfall of 200mm and an annual evaporation rate of 3,800mm there is likely to be little surface flow during normal seasonal rains. The areas under application are mapped within the Lake Carnegie Catchment of the Salt Lake Basin.

With high annual evaporation rates and low annual rainfall there is little recharge into regional groundwater table, which at this site has a salinity level of between 1,000 mg/l and 3,000 mg/l, which is considered to be marginal to brackish. Considering the relatively small size of the proposed three gravel pits (1ha each) and the magnitude of the Nabberu (6,069,700ha) Groundwater Province, the proposed clearing is unlikely to have an impact on regional groundwater.

Methodology GIS Databases:
- Evaporation Isopleths - BOM 09/98
- Isohyets - BOM 09/98
- Groundwater Salinity, Statewide - 22/02/00
- Hydrography, linear - DOE 01/02/04
- Groundwater Provinces - WRC 98
- Hydrographic Catchments, Catchments - DOE 23/03/05

(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 at variance to this Principle

With an average annual rainfall of 200mm and an annual evaporation rate of 3,800mm there is little surface flow during normal seasonal rains. Given the low annual rainfall and the small scale of the proposed clearing (3 pits, 1ha each), clearing the vegetation under application is unlikely to cause or exacerbate the incidence or intensity of flooding.

Methodology GIS Databases:
- Evaporation Isopleths - BOM 09/98
- Isohyets - BOM 09/98

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

Comments

The areas under application are within the Proclaimed Groundwater Area of East Murchison. Therefore any abstraction of groundwater would require a licence. However, this application for gravel extraction is not associated with ground water extraction.

There is no other RIWI Act Licence, Works Approval or EPA Act Licence that affects the area under application.

There is one Native Title Claim over the area under application. The Department of Environment and Conservation's advertising of the application in the West Australian newspaper constitutes legal notification of the native title representative body for the purpose of the future act procedures under the Native Title Act 1993. No response was received from the representative body.

Methodology GIS databases:
- Cadastre - DLI 1/12/05
- Native Title Claims - DLI 7/11/05
- RIWI Act, Groundwater Areas - WRC 13/06/00
- RIWI Act, Surface Water Areas - WRC 18/10/02

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Extractive Industry	Mechanical Removal	3	Assessment against the Principles of Clearing Native Vegetation, as listed in Schedule 5 of the Environmental Protection Act 1986, has been completed, and the clearing is not likely to be at variance with any of the Principles. It is recommended to grant a permit to clear up to 3ha for extractive industry with conditions addressing Revegetation, Recording and Reporting.

5. References

DAWA (2004) Soil-landscape mapping, Department of Agriculture Western Australia, Date accessed 01/05/04.

Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.

Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.

JANIS Forests Criteria (1997) Nationally agreed criteria for the establishment of a comprehensive, Adequate and Representative reserve System for Forests in Australia. A report by the Joint ANZECC/MCFFA National Forest Policy Statement Implementation Sub-committee. Regional Forests Agreement process. Commonwealth of

Australia, Canberra.
Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.

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)