Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 1648/1

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: CEO Shire of Yalgoo

1.3. Property details

Property: LOT 11818 ON PLAN 238092 (YALGOO 6635)
LOT 4261 ON PLAN 220394 (YALGOO 6635)

Local Government Area: Shire Of Yalgoo

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4.4		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 202: Shrublands; mulga & Acacia quadrimarginea scrub Beard vegetation association 326: Lot woodland over scrub; mulga over bowgada & minniritchie scrub Beard vegetation association 420: Shrublands; bowgada & jam scrub (Hopkins et al. 2001, Shepherd et al. 2001).	The proposal includes clearing of 4.4 ha of native vegetation, for two gravel pits and access road, which has been heavily grazed in the past. The vegetation under application appears to be consistent with Beard vegetation associations consisting of bowgada, mulga and jam scrub (Application, 2006, DEC TRIM Ref DOC10525).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The condition of the vegetation under application was ascertained through photographs provided with the application by the Shire of Yalgoo (Application, 2006, DEC TRIM Ref DOC10525).

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 proposal includes clearing of 4.4 ha of native vegetation, for two gravel pits and access road, which have been heavily grazed in the past. The Yalgoo Bioregion and Beard vegetation associations 202, 326 and 420 are all well represented with greater than 95% of the pre-European extent remaining (Shepherd et al, 2001).

The vegetation under application appears to be consistent with the Beard vegetation associations under application, consisting of bowgada, mulga and jam scrub (Application, 2006, DEC TRIM Ref DOC10525). In addition the vegetation under application is in a 'degraded' condition (Keighery, 1994).

Due to the extensive surrounding vegetation, history of disturbance and the condition of the vegetation, it is unlikely that the proposed areas to be cleared are representative of an area of outstanding biodiversity in the Bioregion or local area.

Methodology

Application (2006) DEC TRIM Ref DOC10525
Keighery (1994)
Shepherd et al, 2001
GIS Databases:

- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Pre European Vegetation - DA 01/01

(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 proposal includes clearing of 4.4 ha of native vegetation, for two gravel pits and access road, which have been heavily grazed in the past. The Yalgoo Bioregion and Beard vegetation associations 202, 326 and 420 are all well represented with greater than 95% of the pre-European extent remaining (Shepherd et al, 2001). The vegetation under application appears to be consistent with the Beard vegetation associations under application, consisting of bowgada, mulga and jam scrub (Application, 2006, DEC TRIM Ref DOC10525). In addition the vegetation under application is in a ýdegradedý condition (Keighery, 1994).

There are 16 records of a range of fauna species of conservation significance within 50 km from the areas under application, with the closest record approximately 6.8 km. Given the extensive vegetation surrounding the areas under application, the degraded condition of the vegetation and the history of disturbance through grazing, it is unlikely that the areas under application represent a significant habitat for indigenous fauna.

Methodology

SAC Bio datasets (Accessed 27/04/2007)
Application (2006) DEC TRIM Ref DOC10525
Shepherd et al (2001)
GIS Databases:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Pre European Vegetation - DA 01/01

(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

DEC (2007) provided advice on the area under application on the ex-Warriedar Pastoral Station, now managed by DEC. DEC (2007) advised that 'The pit is situated on the Kalli land system, which is a widespread system of deep red sands occasionally over weathered granite or lateritic gravels. The vegetation is typically dominated by Acacia linophylla/ramulose, A. aneura, Eromophila forrestii, E. clarkei, Ptilotus schwartzii and is commonly highly uniform over larges areas with only changes in geology controlling changes in plant populations. The vegetation in the area adjacent to the pit is highly typical of the gravely expression of Kalli land system and contained less than 10 common perennial species. Parts of the proposed extension have also been previously disturbed.'

There are 5 records of one Declared Rare Flora (DRF) taxa, 7 records of Priority 1 flora, 5 records of Priority 3 flora and 9 records of Priority 4 flora species within 50 km from the area under application, with the closest occurrence being a Priority flora species located 10 km from one of the sites under application. The 5 recorded DRF taxa occur on a different soil type than the two sites under application.

Due to the different soil type and the distance to any Priority flora species, it is unlikely that this proposal is necessary for the continued existence of rare flora.

Methodology

DEC (2007
GIS Databases:
- Declared Rare and Priority Flora list - CALM 01/07/05
- Clearing Regulations - Environmentally Sensitive Areas - DoE 30/05/05
- Soils, Statewide - DA 11/99

(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 Threatened Ecological Communities (TEC's) within a 50 km radius of the sites proposed to the cleared. Due to the 'degraded' condition (Keighery, 1994) of the vegetation and the extensive historical grazing, it is unlikely that the areas under application supports any Threatened Ecological Communities.

This proposal is therefore unlikely to be at variance with this Principle.

Methodology

Keighery (1994)
GIS Databases:
- Threatened Ecological Communities - CALM 12/04/05
- SAC Bio Datasets (24042007)

(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 vegetation under application is a component of Beard Vegetation Associations 202, 326 and 420 (Hopkins et al. 2001) of which there is 100%, 100% and 96.5% of the pre-European extent remaining respectively (Shepherd et al. 2001). These vegetation types are therefore of 'least concern' for biodiversity conservation (Department of Natural Resources and Environment 2002). In addition the vegetation under application also falls within the Yalgoo Bioregion, which is also of 'least concern' for biodiversity conservation. Therefore the proposed clearing is not considered to a significant remnant of vegetation in an area that has been extensively cleared.

	Pre-European area (ha)	Current extent (ha)	Remaining %*	Conservation status**	Reserves/CALM-managed land, %
IBRA Bioregion - Yalgoo	5,057,672	5,007,352	99.0	Least concern	20.5
Shire - Yalgoo	Not available	Not available	Not available	Not available	Not available
Beard veg type - 202	448,534	448,534	100	Least concern	20.4
Beard veg type - 326	1,034,358	1,034,358	100	Least concern	14.3
Beard veg type - 420	859,654	829,299	96.5	Least concern	8.0

* (Shepherd et al. 2001)

** (Department of Natural Resources and Environment 2002)

Methodology

GIS Databases:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Pre-European Vegetation - DA 01/01
- Local Government Authorities - DLI 08/07/04
- EPA Position Paper No 2 Agriculture Region - DEP 12/00

Shepherd et al, 2001.

Department of Natural Resources and Environment, 2002

(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 no watercourses or wetlands located within 50 m of either of the proposed clearing sites. The local area contains numerous minor non-perennial watercourses, however due to the distance from either of the proposed areas of clearing there is unlikely to be any impact on any watercourses. This proposal is therefore unlikely to be at variance with this Principle.

Methodology

GIS Databases:
- Hydrography, linear - DoE 01/02/04
- Hydrographic Catchments - Catchments - DoE 23/03/05

(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 areas under application fall within a low rainfall area (300 mm per annum) and exhibit no risk of salinity. The soils under application contain neutral and alkaline red earths and earthy loams underlain by a red-brown hardpan. Given the soil types may potentially exhibit poor infiltration rates there may be a short term land degradation risk of localised flooding. However, given the small areas under application (2.6 ha and 1.8 ha) and the low rainfall rate it is unlikely that this proposal will cause appreciable land degradation. In addition, conditions will be placed on the permit to undertake revegetation on completion of gravel extraction, which will minimise any long term land degradation risks associated with these extraction sites.

Methodology

GIS Databases:
- Rainfall, Mean Annual - BOM 30/09/01
- Salinity Risk LM 25m - DOLA 00
- Acid Sulphate Soil risk map, SCP DOE 04/11/04
- 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 likely to be at variance to this Principle

There are no DEC Managed Lands and Waters within 50 km from the areas under application. However, there are 7 former leasehold properties proposed for conservation within 50 km from the two sites under application.

One of the areas under application occurs within the former Warriedar Pastoral Station.

DEC (2007) provided advice on the area under application on the ex-Warriedar Pastoral Station, now managed by DEC. DEC (2007) advised that 'The pit is situated on the Kalli land system, which is a widespread system of deep red sands occasionally over weathered granite or lateritic gravels. The vegetation is typically dominated by Acacia linophylla/ramulose, A. aneura, Eromophila forrestii, E. clarkei, Ptilotus schwartzii and is commonly highly uniform over larges areas with only changes in geology controlling changes in plant populations. The vegetation in the area adjacent to the pit is highly typical of the gravely expression of Kalli land system and contained less than 10 common perennial species. No uncommon or priority species were found in a 20 minute walk around the pit. Parts of the proposed extension have also been previously disturbed.'

Given the small areas under application (4.4 ha) and that the area under application on former leasehold property will be to extend an already existing gravel pit, it is unlikely that this proposal will have an impact on the environmental values of any conservation area. In addition, conditions will be placed on the permit to undertake revegetation on completion of gravel extraction, which will minimise any long term impacts associated with these extraction sites.

Methodology DEC (2007)
GIS Databases:
- CALM Regional Parks - CALM 12/04/02
- CALM Managed Lands & Waters - CALM 01/07/05
- Proposed National Parks FMP-CALM 19/03/03
- Register of National Estate - EA 28/01/03
- Clearing Regulations - Environmentally Sensitive Areas - DoE 30/05/05

(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 is not likely to be at variance to this Principle

The areas under application lie within the YarraMonger catchment and fall within a low rainfall area (300 mm per annum).

With high annual evaporation rates and low annual rainfall there is likely to be little groundwater recharge. A Department of Water monitoring bore located 66 km south west of the nearest area proposed to be cleared has an average static water level of 4 m from ground level. Groundwater salinity (measured as Total Dissolved Solids) across the two areas under application range between 3000-7000 mg/L and is considered to be brackish. The proposed clearing of native vegetation for this proposal is unlikely to have an impact on regional groundwater considering the relatively small size of the clearing (4.4 ha).

The proposed clearing for gravel extraction sites may cause some short term water quality issues in terms of localised surface water sedimentation during works. However, these issues should be minimised as conditions will be placed on the permit to undertake revegetation on completion of gravel extraction, which will minimise any long term water quality issues associated with the gravel extraction.

Due to the small and isolated areas under application it is unlikely that this proposal will cause any deterioration in the quality of surface or underground water. In addition, conditions to revegetate the used extraction sites will minimise water quality issues associated with clearing.

Methodology GIS Databases:
- Groundwater salinity, Statewide - DOW
- WIN Groundwater Sites, Monitoring DEWCP (current)
- Public Drinking Water Sources (PDWSAs) - DOE 09/08/05
- Hydrographic Catchments - Catchments - DOE 23/03/05
- Hydrography, linear - DoE 01/02/04
- Rainfall, Mean Annual - BOM 30/09/01

(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 areas under application have an average annual rainfall of 300 mm and an annual evaporation rate of 3000 mm, which represents very little surface flow during normal seasonal rains. However, during high rainfall events the Yalgoo area is at risk of localised flooding. Due to this history and the small scale (4.4 ha) of the proposed clearing, this proposal is unlikely to cause or exacerbate the incidence or intensity of flooding in the region.

Methodology GIS Databases:
- Rainfall, Mean Annual - BOM 30/09/01
- Topographic Contours, Statewide - DOLA 12/09/02
- Evaporation Isopleths - BOM 09/98

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

Comments

The Shire of Yalgoo advised that there are no planning approvals or requirements that may affect the proposal.

There is no further requirement for a RIWI Act Licence, Works Approval or EP Act Licence for the area under application.

There are two Native Title Claims over the areas 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.

The EPA received the Shire of Yalgoo TPS No. 2 Scheme Amendment that included the area under application. The Scheme Amendment was not assessed (no appeals), however advice was given under Section 48. The level of assessment was set on 6 January 2005.

One of the sites under application falls within the former leasehold property known as Warriedar Pastoral Station and is listed as Unallocated Crown Land. DEC manage the land under an MOU with the Department of Planning and Infrastructure. The applicant has received written permission from the land manager to conduct the clearing as requested.

Methodology

Shire of Yalgoo submission
GIS Databases:
- Aboriginal Sites of Significance - DIA 28/02/03
- Native Title Claims - DLI 07/11/05
- RIWI Act, Groundwater Areas - WRC 13/06/00
- RIWI Act, Surface Water Areas - WRC 18/10/02
- Cadastre - DLI

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Extractive Industry	Mechanical Removal	4.4	The assessable criteria have been addressed and no objections were raised. Management conditions relating to revegetation, recording and reporting will be placed on the permit.

5. References

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.

Information provided by the proponent, Shire of Yalgoo, 2006. DEC TRIM Ref DOC10525.

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)