GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Purpose Permit Number: 3763/1
File Number: 2010/003638-1
Duration of Permit: 22 August 2010 – 22 August 2012

PERMIT HOLDER

Shire of Laverton

CONDITIONS

1. **Land of which clearing is to be done**
   CROWN RESERVE 24980 (LAKE WELLS 6440)
   UNALLOCATED CROWN LAND (PLUMRIDGE LAKES 6431)

2. **Purpose for which the clearing may be done**
   Clearing for the purpose of road reconstruction and realignment.

3. **Area of Clearing**
   The Permit Holder must not clear more than 66.18 hectares of native vegetation within the area shaded yellow on attached Plan 3763/1a and Plan 3763/1b.

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 activities to the extent that the Permit Holder has the power to clear native vegetation for those activities under the *Local Government Act 1995* or any other written law.

6. **Weed control**
   (a) When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:
      (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
      (ii) shall not move soils in wet conditions;
      (iii) ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
      (iv) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

   (b) At least once in each 12 month period for the *term* of this Permit, the Permit Holder must remove or kill any *weeds* growing within areas cleared under this Permit.

DEFINITIONS

The following meanings are given to terms used in this Permit:

fill means material used to increase the ground level, or fill a hollow;

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

term means the duration of this Permit, including as amended or renewed;

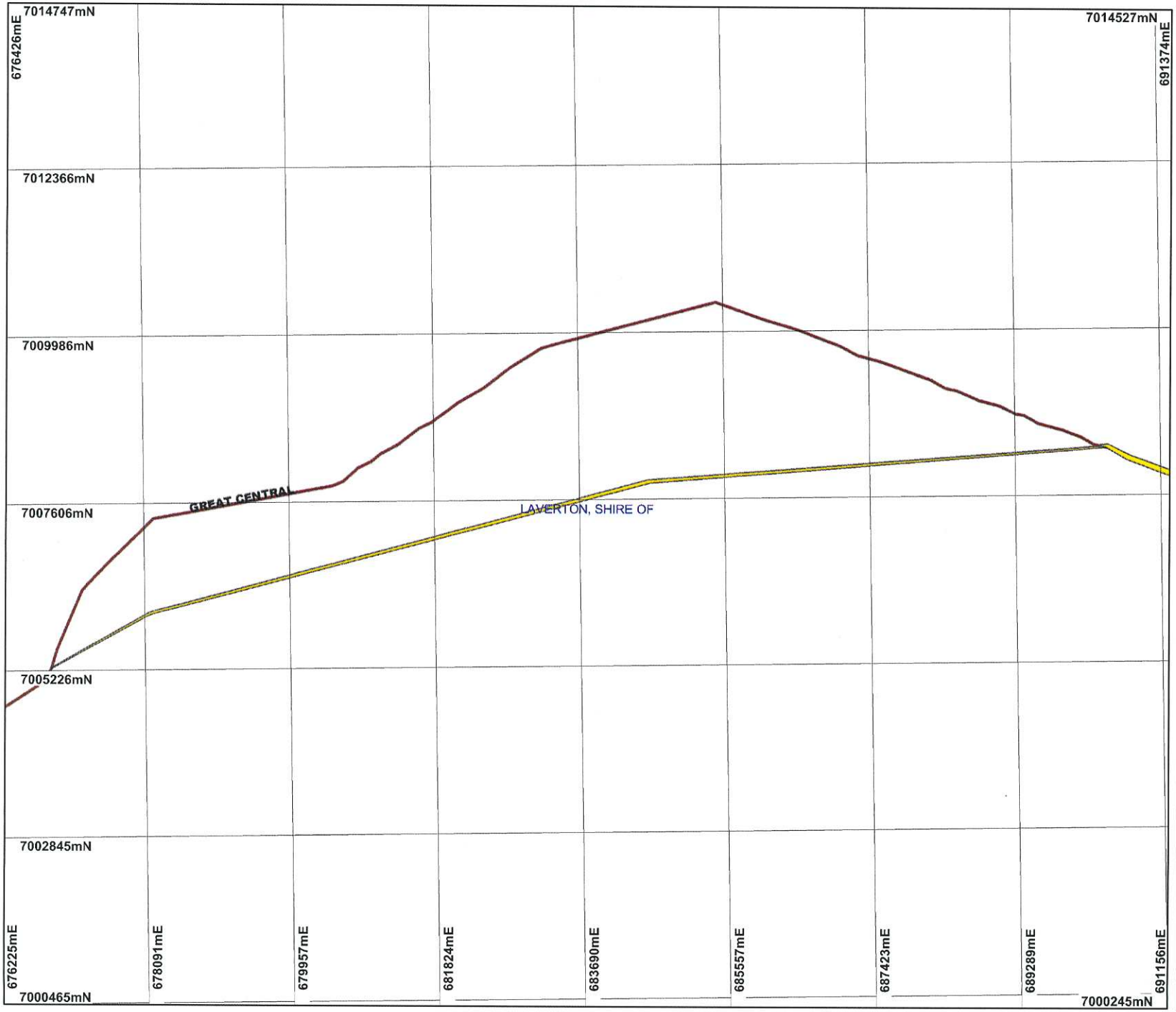
weed/s means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976.*

Matthew Warnock
ACTING MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

Officer delegated under Section 20
of the Environmental Protection Act 1986

22 July 2010

Plan 3763/1a



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear

* *Project Data. This data has not been quality assured. Please contact map author for details.*

N

0 ~2 km

Scale 1:70407
(Approximate when reproduced at Letter)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

..... Date 22/7/10

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 acknowleged by the agency acronym in the legend.

Department of Environment and Conservation

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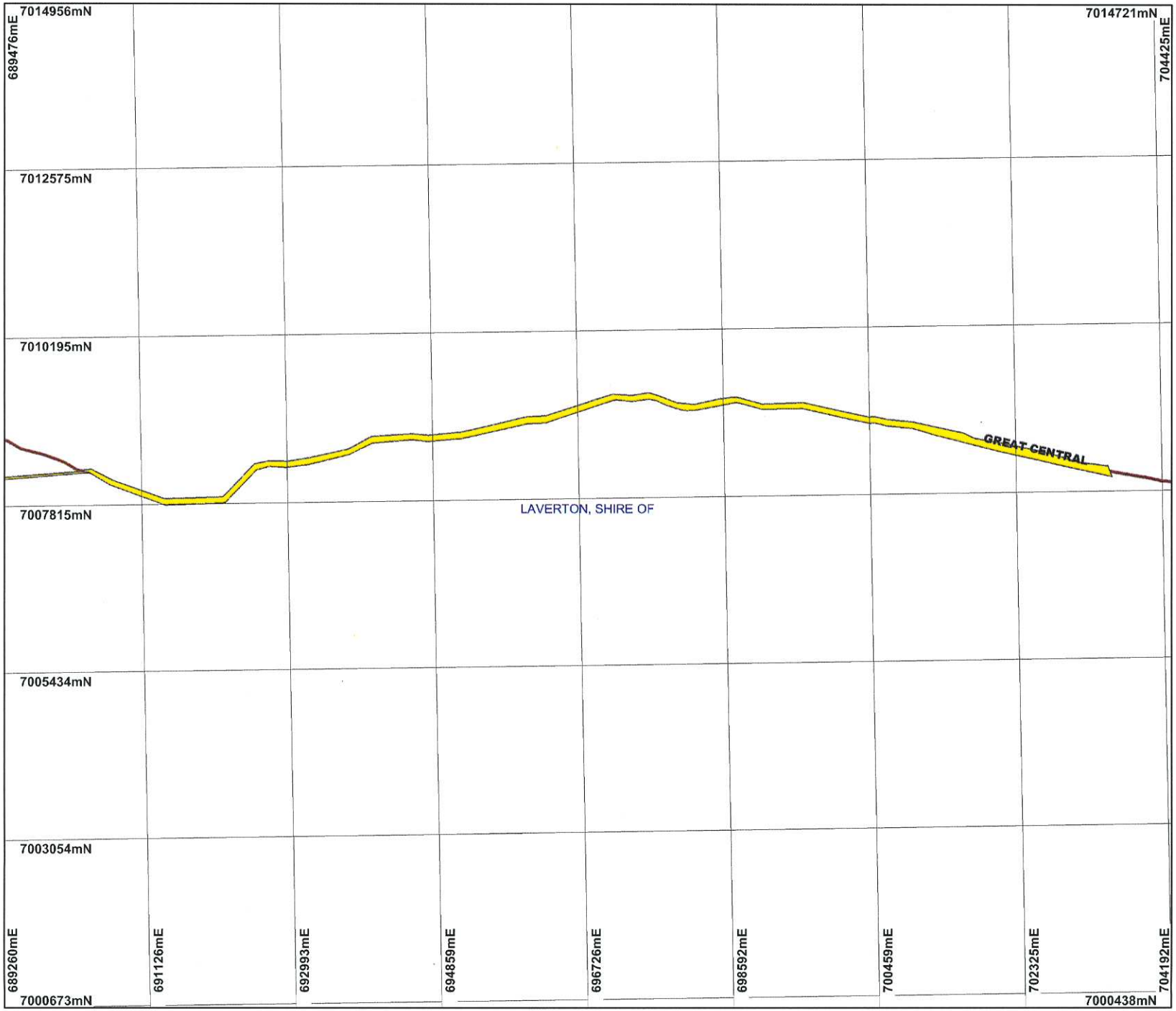
Plan 3763/1b



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Department of Environment and Conservation

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Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3763/1

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Shire of Laverton**

1.3. Property details

Property: CROWN RESERVE 24980 (LAKE WELLS 6440)
UNALLOCATED CROWN LAND (PLUMRIDGE LAKES 6431)

Local Government Area:

Colloquial name:

1.4. Application

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

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: 19 - Low woodland; mulga between sandridges 39 - Shrublands; mulga scrub (Shepherd, 2009).	The application is to clear 66.18 hectares of native vegetation in good (Keighery, 1994) condition for the purpose of road reconstruction and realignment to raise the road surface above the level of surrounding land to alleviate flooding during high rainfall events and improve safety in some areas	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The vegetation description is based on aerial imagery and information provided by the Shire of Laverton (applicant) (DEC ref: A306985).

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 is to clear 66.18 hectares of native vegetation in good (Keighery, 1994) condition for the purpose of road reconstruction and realignment. This proposed works will raise the road surface above the level of surrounding land to alleviate flooding during high rainfall events and improve safety in some areas.

The local area (50km radius) is highly vegetated (approximately 90%) and there are no known records of rare flora species within the local area. Although the priority flora species Calytirx warburtonensis (P2) has been recorded 28km east of the applied area and is found within the same vegetation complex and soil type to that found on site, given the distance from the applied area, it is considered unlikely to occur on site (DEC, 2010a).

Due to the linear nature of the proposed clearing and the extent of vegetation in similar condition retained in the local area, the vegetation proposed to be cleared is not likely to have a high level of biological diversity.

Methodology

References:
- DEC (2010a)
- Keighery (1994)

GIS databases:
- Pre-European Vegetation - DA 01/01
- SAC Bio Datasets accessed 4/06/2010

(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

There is one historic record of a conservation significant fauna species within the local area (50km radius) The Chuditch (Dasyurus geoffroii, VU) was recorded in1962, however, given the length of time since the recorded sighting and that there have been no further sightings of the Chuditch, it is not considered likely that the vegetation under application would provide significant habitat for this species.

Due to the absence of survey data in the area, there are many unknowns associated with the proposal, but it is unlikely that species of significance would be located (DEC, 2010a). Given that the local area is well vegetated (~90% native vegetation retained) with most of the surrounding vegetation in a similar or better condition than the applied area, the vegetation under application is not considered likely to be significant habitat for native fauna species.

Therefore the clearing as proposed is not ikely to be at variance to this Principle.

Methodology

References:
- DEC (2010a)

GIS Databases:
- SAC Bio Datasets accessed 4/06/2010

(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 rare flora species occurring within the local area (50km radius). The closest recorded rare flora species identified as Acacia denticulosa, is located approximately 175km southeast of the applied area and is found within a different vegetation complex and soil type to that found within the area under application.

Given this, it is not considered likely that the vegetation under application includes, or is necessary for the continued existence or, rare flora.

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

Methodology

GIS Database:
- Pre-European Vegetation
- SAC Bio Datasets accessed 4/06/2010
- Soils, Statewide DA 11/99
- Western Australia Landsat Mosaic 25m - AGO 2006

(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 a 50km radius of the applied area.

Therefore the vegetation under application is not likely to comprise whole or part of, or be necessary for the maintenance of a TEC.

Methodology

GIS Database:
- Pre-European Vegetation
- SAC Bio datasets accessed 9/06/2010
- Soils, Statewide DA 11/99
- Western Australia Landsat Mosaic 25m - AGO 2006

(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 vegetation under application is described as Beard vegetation associations 19 and 39 of which there is 100% respectively of pre-European extent remaining in the Bioregion (Shepherd, 2007).

The area under application is located within the Shire of Laverton, within which there is 99.96% of pre-European extent remaining (Shepherd, 2007).

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).

Given the local area (50km radius) is well vegetated (approximately 99% vegetation retained), the vegetation under application is not considered significant as a remnant in the local area.

	Pre-European (ha)	Current extent (ha)	Remaining (%)
IBRA Bioregion*			
Great Victorian Desert	21,794,205	21,784,756	99.96
Shire of Laverton	17,999,851	17,992,328	99.96
Beard Vegetation Complex*			
19	2,866,597	2,866,296	99.99
39	1,183,999	1,183,999	100.00
Beard Vegetation Association with Bioregion*			
19 in Great Victorian Desert	1,968,539	1,968,539	100.00
39 in Great Victorian Desert	826,833	826,833	100.00

* (Shepherd, 2007)

Methodology

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

GIS Database:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Local Government Authorities - DLI 8/07/04
- Pre-European Vegetation - DA 10/01
- SAC BIO Datasets accessed 4/06/2010
- Western Australia Landsat Mosaic 25m - AGO 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 not likely to be at variance to this Principle

There are no wetlands or watercourses mapped within the area under application. However, there are 3 non-perennial lakes located within the near vicinity of the applied area, the closest being approximately 100m north. In addition there are numerous minor non-perennial watercourses located within a 50km radius of the applied area, the closest located 1km north.

Given the distance to the nearest wetland and watercourse, the vegetation under application is not considered to be growing in, or in association with, an environment associated with a watercourse or wetland.

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

Methodology

GIS Databases:
- Hydrography, Lakes (medium scale, 250K GA)
- Hydrography, Linear - DOE 1/2/04
- Western Australia Landsat Mosaic 25m - AGO 2006

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments

Proposal may be at variance to this Principle

The chief soils within the area under application are described as red earthy sands and shallow red earths (Northcote et al, 1968).

Although the local area is well vegetated (approximately 90% native vegetation retained), given that the area under application is located in extremely undulating terrain and low lying sections are subject to severe flooding during heavy rains, the removal of deep rooted native vegetation may exacerbate the risk of water erosion.

Therefore the clearing as proposed may be at variance to this Principle. To mitigate this impact the roads will be constructed with draingage structures to manage impacts in the event of heavy rain events.

Methodology Refereneces:
- Northcote et al (1968)

GIS Databases:
- Hydrography, linear - DOW 13/7/06
- Salinity Risk LM 25m - DOLA 00
- 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 is one area of conservation significance within the local area (50km radius), namely the Yeo Lake Nature Reserve which is located approximately 8km south of the applied area.

Given the distance between the closest area of conservation significance and the area under application, it is not considered likely that the proposed clearing would have a direct or indirect impact on the environmental values of the identified conservation reserve.

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

Methodology GIS Databases:
- DEC Tenure
- System 1 to 5 and 7 to 12 areas DEC 11/7/06

(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 closest watercourse, a minor non-perennial watercourse is located 1km north of the area under application and the closest wetland is a non-perennial lake which is located approximately 100m north of the applied area. The area under application is situated within the Warburton Basin Catchment, but is not located within a Public Drinking Water Source Area (PDWSA).

Given the distance to the nearest watercourse and that the vegetation under application is not associated with a surface water expression, the clearing as proposed is not considered likely to cause deterioration in surface water quality.

Removal of deep rooted native vegetation within the applied area may lead to an increase in recharge in the immediate area, however, given the extent of native vegetation within the local area (approximately 90% in 50km radius) the clearing as proposed is not considered likely to result in the 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:
- Hydrographic Catchments - Catchments - DOW - 01/06/07
-Hydrography, linear - DoW 13/7/06
- Hydrography, linear_1
- Public Drinking Water Source Areas (PDWSAs)
- RIWI Act, Groundwater Areas
- Western Australia Landsat Mosaic 25m - AGO 2006

(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 is located in an extremely undulating landscape, with low lying sections subject to severe flooding during periods of inclement weather conditions, creating impassable conditions. The Shire of Laverton (2010) advises that due to the flooding potential in parts of the road (SLK338.60-350.30), the road formation will have to be raised quite considerably to facilitate heavily defined drainage.

Given the local area is well vegetated (approximately 90% native vegetation retained) and that drainage structures will be installed, the clearing as proposed is not considered to exacerbate the risk of flooding.

Given the above, it is considered that the proposed clearing is not likely to be at variance to this Principle.

Methodology References:
- Shire of Laverton (2010)

GIS Databases:

-Hydrography, linear - DoW 13/7/06
- Hydrography, linear_1
- Western Australia Landsat Mosaic 25m - AGO 2006

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

Comments

There are no Aboriginal Sites of significance within the area under application.

The Shire of Laverton (2010) have advised that due to the undulating topography, the Great Central Road is subject to flooding and is impassable during periods of inclement weather conditions; and as such, the road will have to be raised quite significantly to allow the installation of heavily defined drainage. (DEC ref: A305238).

The Department of Water (DoW) have reviewed the clearing application and have no objections to the proposal (DEC ref: A314069).

The Roadside Conservation Committee (RCC)(DEC, 2010b) advised that whilst the clearing is more than would normally be expected for road construction, given the high vegetation representation in the Shire and the need to cater for high rainfall and flooding issues, the RCC accepts the justification of a 30m clearance zone for the road formation. These issues were considered during the assessment of the clearing application (DEC ref: A314353).

Authority to access and undertake the clearing on Crown Land has been obtained from the Department of Regional Development and Lands. (DEC ref: A319402).

Methodology

References:
- DEC (2010b)
- Department of Regional Development and Lands (2010)
- Department of Water (2010)
- Shire of Laverton (2010)

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 may be at variance to clearing Principles (g) and is not likely to be at variance to the remaining clearing principles.

5. References

Commonwealth of Australia (2001) National objectives and targets for biodiversity conservation 2001?2005. Commonwealth of Australia, Canberra, ACT.

DEC (2010a) Biodiversity advice for land clearing application. Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Environment and Conservation, received 24 June 2010. Goldfields Region, Department of Environment and Conservation, Western Australia.

DEC (2010b) Biodiversity advice for land clearing application. Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Environment and Conservation, received 2 July 2010. Roadside Conservation Committee, Department of Environment and Conservation, Western Australia.

Department of Regional Development and Lands (2010) Letter of authority to access and undertake clearing on Crown Land. (DEC ref: A319402).

Department of Water (2010) Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Environment and Conservation, received 1 July 2010. Roadside Conservation Committee, Department of Environment and Conservation, 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, D.P. (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.

Shire of Laverton (2010) Information supplied with clearing application (DEC ref: A306985).

6. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management (now DEC)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment (now DEC)
DoW	Department of Water
DMP	Department of Mines and Petroleum (ex DoIR)
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)