



1. Application details

1.1. Permit application details

Permit application No.: 3040/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Lais Valerie Grewar

1.3. Property details

Property: LOT 1508 ON PLAN 207128 (DALYUP 6450)
Local Government Area:
Colloquial name:

1.4. Application

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

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: 516 Shrublands; mallee scrub, black marlock.	The application is to clear 150ha of native vegetation for agriculture. The vegetation is in excellent (Keighery 1994) condition.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The vegetation condition and description was determined from a DEC site inspection undertaken 28 April 2009 (TRIM ref DOC83546).

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 at variance to this Principle

The amended application is to clear 150ha of native vegetation ranging from excellent (Keighery 1994) condition for the purpose of cropping and pasture.

The application lies within a highly cleared landscape that has been recognised by the EPA in Position Statement No. 2 'Environmental Protection of Native Vegetation - Clearing of Native Vegetation, with particular reference to the Agricultural Area'. Native vegetation within this area is considered to be significant and clearing for agricultural purposes is not supported (EPA, 2000).

Eucalyptus varia subsp. saluginusa, a priority 4 species, has been recorded neighbouring the proposed clearing area. The vegetation under application is mapped as containing the same vegetation and soil types as where this species was recorded. The application area may therefore contain priority flora species.

Orthomosaic imagery suggests the local area (10km radius) is highly cleared, with approximately 5% of native vegetation remaining. Most of the vegetation under application is considered to be in excellent (Keighery 1994) condition, with little to no evidence of weed intrusion or other disturbances (DEC 2009). This large intact remnant of vegetation is therefore considered to be regionally significant and contain a high level of biological diversity.

The clearing as proposed is considered to be at variance to this principle.

Methodology

DEC (2009)
EPA (2000)
Keighery (1994)

GIS database:

- CALM Managed Lands and Waters - CALM 01/06/05
- SAC Biodatasets - accessed 11 April 09
- Declared Rare and Priority Flora List - CALM 13/08/03
- Pre European Vegetation - DA 01/01
- Clearing Regulations, Environmentally Sensitive Areas 30 May 2005

(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 at variance to this Principle

Whilst no rare or priority fauna species have been recorded within the local area (10km radius), this is likely to be due to a lack of information. Orthomosaic imagery suggests the local area is highly cleared, with approximately 5% of native vegetation remaining. The vegetation under application, being 150 ha of vegetation in excellent (Keighery 1994) condition (DEC 2009), therefore represents one of the last significant remnants within a highly cleared landscape and is likely to be locally significant fauna habitat. The proposal is therefore at variance to this principle.

Methodology DEC (2009)
Keighery (1994)

GIS database:

- CALM Managed Lands and Waters - CALM 01/06/05
- SAC Biodatasets - accessed 24 March 09
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments Proposal may be at variance to this Principle

Eucalyptus merrickiae (DRF) has been recorded 11km north east of the application area within the same vegetation complex. E. merrickiae mainly grows around salt lakes and saline flats, but has also been recorded along road verges (Florabase 2009). Given the application area lies less than 300m from a saline drainage line (DEC 2009), and neighbours roadside vegetation, the vegetation under application may contain this rare species and as such the proposed clearing may be at variance to this principle. A flora survey is necessary to determine whether rare or priority species occur within the application area.

Methodology Florabase (2009)
DEC (2009)

GIS database:

- Declared Rare and Priority Flora List - CALM 13/08/03
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 11 April 09
- 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 records of Threatened Ecological Communities (TECs) within the local area (10km radius). The vegetation under application is therefore not likely to contain TECs, and the clearing as proposed is not likely to be at variance to this principle.

Methodology GIS Database:
- SAC Biodatasets - accessed 24 March 08
- Pre European Vegetation - DA 01/01
- Soils, Statewide DA 11/99

(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 local area (10m radius) is highly cleared, with orthomosaic imagery suggesting approximately 5% native vegetation remains. The vegetation under application is a large (150ha) and locally significant remnant of native vegetation in excellent (Keighery 1994) condition (DEC 2009). It is also likely to be providing an ecological stepping stone between the other significant remnants of native vegetation occurring within the local area: 3km north (1650ha), 4.5km south west (193ha) and 9km south (180ha).

The vegetation under application is of Beard vegetation association 516 and lies within the Mallee IBRA Bioregion. These retain 41.07% and 54.63% pre-European vegetation respectively within the bioregion (Shepherd et al. 2007).

The notified area falls within the boundaries of EPA Position Statement No. 2 'Environmental Protection of

Native Vegetation in Western Australia - Clearing of Native Vegetation, with particular reference to the agricultural area'. This Position Statement recommends that further clearing of native vegetation within this area for agricultural purposes should not be supported (EPA 2000).

As any vegetation identified in EPA Position Statement No. 2 is considered to be significant, this proposal is at variance to this principle.

Methodology DEC (2009)
EPA (2000)
Shepherd et al. (2007)

GIS Databases:

- Albany 1.4m Orthomosaic - DLI March 03
- Heddl Vegetation Complexes - DEP 22/06/95
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Local Government Authorities - DLI 8/07/04
- Mattiske Vegetation - CALM 1/03/1998
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 10 April 08
- NLWRA, Current Extent of Native Vegetation 20 Jan 2001

(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 may be at variance to this Principle**

A minor non-perennial watercourse flows 300m north of the application area. The vegetation under application is not considered to be growing in association with a watercourse, however the clearing of 150ha of excellent (Keighery 1994) condition vegetation as proposed is likely to impact water tables and adversely affect riparian vegetation. The clearing as proposed is may therefore be at variance to this principle.

Methodology Keighery (1994)

GIS Databases:

- ANCA wetlands - Environment Australia 26/3/99
- EPP Lakes Policy Area - DEP 14/05/97
- EPP, Wetlands 2004 (DRAFT) - EPA 21/7/04
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

(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 minor non-perennial watercourse which flows 300m north of the application area is saline (DEC 2009). The clearing of 150ha of excellent (Keighery 1994) condition vegetation may further increase the salinity of this watercourse and land degradation on and offsite. Therefore, the proposal may be at variance to this principle.

Methodology DEC (2009)
Keighery (1994)

GIS database:

- Average Annual Rainfall Isohyets - WRC 29/09/98
- Annual Evaporation Contours (Isopleths) - WRC 29/09/98
- Hydrogeology, statewide - DOW 13/07/06
- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrography, linear - DOW 13/7/06
- Salinity Risk LM 25m - DOLA 00
- Soils, Statewide DA 11/99
- Topographic contours statewide - DOLA and ARMY 12/09/02
- Hydrogeology, Statewide 05 Feb 2002

(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**

The nearest conservation area is 10km west of the application area.

The vegetation under application is a large (150ha), and excellent (Keighery 1994) condition remnant in a

cleared landscape and therefore may be providing a significant stepping stone between other remnants and conservation areas.

The clearing as proposed may therefore be at variance to this principle.

- Methodology** GIS Databases:
- CALM Managed Lands and Waters - CALM 01/06/05
 - Hydrography, linear - DOW 13/7/06
 - Register of National Estate - Environment Australia, Australian and world heritage division 12 Mar 02
 - 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 may be at variance to this Principle**

A minor non-perennial watercourse runs 300m of the application area. This is a tributary of Lake Gore, a Ramsar wetland 23km south of the application area. The clearing of 150ha of excellent (Keighery 1994) condition native vegetation as proposed may lead to increased salinity of this watercourse and result in further deterioration of surface water quality. The clearing may therefore be at variance to this principle.

Methodology Keighery (1994)

GIS database:

- Evapotranspiration Isopleths - WRC 29/09/98
- Groundwater Salinity Statewide DoW 13/07/06
- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrographic catchments, subcatchments - DoW 01/06/07
- Hydrography, linear - DOW 13/7/06
- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
- Salinity Risk LM 25m - DOLA 00
- Topographic Contours, Statewide - DOLA 12/09/02

(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 may be at variance to this Principle**

The clearing area is large (150ha) and the hydrogeology consists of rocks of low permeability. The risk of flooding is therefore increased. Therefore, the clearing as proposed may be at variance to this principle.

Methodology GIS database:

- Environmental Impact Assessments - EPA 22/2/07
- Evaporation Isopleths - WRC 29/09/98
- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrographic catchments, subcatchments - DoW 01/06/07
- Hydrography, linear - DoW 13/7/06
- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
- Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The area proposed to be cleared falls within the boundaries identified under EPA Position Statement No. 2 'Environmental Protection of native vegetation in Western Australia - Clearing of native vegetation, with particular reference to the agricultural area'. This position statement advises that any further reduction in native vegetation through clearing for agricultural purposes cannot be supported (EPA 2000).

A submission was received highlighting the potential for increased risk of salinity, and impacts on Lake Gore, a RAMSAR Convention listed wetland. These issues have been addressed in under the appropriate clearing instrument. (TRIM ref DOC83315).

The applicant has amended the application to retain 58.4ha of native vegetation at the northern end, abutting the drainage line. The amended application area is 150ha. (TRIM ref DOC89947).

- Methodology** EPA (2000)
TRIM ref DOC83315
TRIM ref DOC89947

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 at variance to Principle (a), (b), and (e), may be at variance to Principle (c), (f), (g), (h), (i) and (j), and is not likely to be at variance to Principle (d).

5. References

- DEC (2009) Site Inspection Report for Clearing Permit Application CPS 3040/1, Lot 1508 Dalyup Road, Esperance. Site inspection undertaken 28/4/2009. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC83546).
- EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority, 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.
- 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

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)

