



1. Application details

1.1. Permit application details

Permit application No.: 2637/1
 Permit type: Area Permit

1.2. Proponent details

Proponent's name: Leslie Grant & Irene Janece Yench

1.3. Property details

Property: LOT 1578 ON PLAN 207749 (COOMALBIDGUP 6450)
 LOT 1578 ON PLAN 207749 (COOMALBIDGUP 6450)
 Local Government Area: Shire Of Esperance
 Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1		Burning	Grazing & Pasture

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: 48: Shrublands, scrub-heath (Shepherd et al. 2006).	The proposal is to clear 1 ha of native vegetation for the establishment of pasture. The area under application has been heavily grazed and currently supports scattered shrubs over a groundcover of pasture weeds consistent with a parkland cleared structure.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	Description and condition of the vegetation under application was determined from Site Inspection (2008).

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments	<p>Proposal is not likely to be at variance to this Principle</p> <p>During Site Inspection (2008) the area under application was observed to support low floristic diversity with parkland cleared heathland vegetation in completely degraded (Keighery, 1994) condition.</p> <p>Within a 5 km radius of the area under application ~16% of native vegetation remains and the majority of this is composed of isolated paddock remnants like the area under application. The nearest remnant to the area under application is ~2 km to the west and the area under application does not form part of an ecologically significant linkage.</p> <p>Given the condition of the vegetation under application and the level of clearing that has occurred within the vicinity of the area under application, the area is considered to support poor quality habitat for indigenous fauna and supports low floristic diversity. Therefore, the proposed clearing is not considered likely to be at variance to this principle.</p>
Methodology	<p>References:</p> <ul style="list-style-type: none"> - Site Inspection (2008) - Keighery (1994) <p>GIS Databases:</p> <ul style="list-style-type: none"> - NLWRA, Current Extent of Native Vegetation - Esperance 1.4m Orthomosaic - Landgate 2002

(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

During site inspection (2008) the area under application was observed to support parkland cleared heathland vegetation in completely degraded (Keighery, 1994) condition.

One indigenous fauna species of conservation significance has been recorded within a 10 km radius of the area under application, being the Hooded Plover (*Charadrius rubricollis*).

Given the landform type, vegetation composition and vegetation structure present within the area under application it is considered unlikely that suitable habitat for this species would be present on site (Garnett and Crowley, 2000). Given this clearing as proposed is not considered likely to be at variance to this principle.

Methodology References:

- site inspection (2008)
- Garnett and Crowley (2000)
- Keighery (1994)

GIS Databases:

- SAC Bio datasets 03/09/2008

(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 for rare flora within a 10 km radius of the area under application. The closest known record of rare flora is for *Anigozanthos bicolor* subsp. minor, located ~ 16 km east of the area under application.

The area under application was observed to support parkland cleared heathland vegetation (site inspection 2008) on sandy yellow mottled soils (Northcote et al., 1960-68).

Known populations of *Anigozanthos bicolor* subsp. minor occur in moist white sandy soils, occasionally grey-brown sands in moderately dense heath (Western Australian Herbarium 1998; Brown et al., 1998).

Given that the only known species of rare flora, being *Anigozanthos bicolor* subsp. minor, occurs on different soils and a different vegetation type to the area under application it is considered unlikely that this species would occur within the area under application. Thus clearing as proposed is not considered likely to be at variance to this principle.

Methodology References:

- Northcote et al. (1960-68)
- Western Australian Herbarium (1998)
- Brown et al. (1998)

GIS Databases:

- Pre-European Vegetation
- Soils, Statewide DA 11/99
- Pre European Vegetation - DA 01/01
- SAC Bio datasets 03/09/2008

(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) within a 50 km radius of the area under application.

Given this the area is considered unlikely to comprise an occurrence to a TEC and clearing is not considered likely to be at variance to this principle.

Methodology GIS Databases:

- SAC Bio datasets 03/09/2008

(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 proposed clearing is within the Intensive Land-use Zone (Shepherd et al, 2001) and is located in the area defined in EPA Position Statement No. 2 (EPA, 2000). Significant clearing of native vegetation has already occurred within this area and 'from an environmental perspective the EPA is of a view that it is unreasonable to

expect to be able to continue to clear native vegetation from land within the agricultural area other than relatively small areas and where alternative mechanisms for protection biodiversity are addressed' (EPA, 2000). The area under application is for 1 ha in a completely degraded (Keighery 1994) condition with little biodiversity value and it is unlikely to continue existing without intensive management (ie natural recruitment is unable to occur).

The area of vegetation under application is associated with Beard vegetation association 48, being scrub-heath, which has 18.3% pre-European vegetation extent remaining (Shepherd 2006).

Within a 5 km radius of the area under application ~16% of native vegetation remains and the majority of this is composed of isolated paddock remnants like the area under application. The nearest remnant to the area under application is ~2 km to the west.

Although the area under application supports parkland cleared heath in completely degraded (Keighery, 1994) condition (Site Inspection 2008), Beard vegetation association 48 has less than the government target of 30% pre-European extent remaining and at a local scale and within the wider agricultural area extensive clearing has occurred, thus clearing as proposed may be at variance to this principle.

	Pre-European area (ha)	Current extent (ha)	Remaining %	% in reserves/DEC-managed land
BioRegion:				
Esperance Plains *	2,899,949	1,482,950	51.1	28.5
Shire of Esperance *	4242884	3011033	71.0	22.8
Local Area (5 km radius)	78,500	1,300	16	-
Hedde vegetation complex				
Data deficient	-	-	-	-
Beard vegetation associations *				
48	62,604	11,448	18.3	4.7

* (Shepherd 2006)

Methodology

References:

- Shepherd (2006)
- EPA (2000)
- Shepherd (2006)
- site inspection (2008)
- Keighery (1994)

GIS Databases:

- Pre-European Vegetation
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Local Government Authorities - DLI 8/07/04
- 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 is not likely to be at variance to this Principle

Several wetlands and watercourses are located in the vicinity of the area under application with the nearest wetland being a non-perennial swamp and associated marshland located ~4.5 km north of the area under application and the nearest watercourse being a tributary of Coobidge Creek located ~2.6 km east of the area under application.

During site inspection (2008) the area under application was observed to support heathland vegetation.

Given the vegetation composition and structure present on site (site inspection 2008) and the distance of the area under application from the nearest wetland and watercourse the site is not considered to support vegetation growing in, or in association with an environment associated with a watercourse or wetland and is not considered to be at variance to this principle.

Methodology

References:

- site inspection (2008)
- ##### GIS Databases:
- Hydrography, linear - DOW 13/7/06
 - Hydrography, linear (hierarchy)

(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 area under application lies within soils associated with Northcote et al (1960-68) soil complex Xd1. These soils are characterised by sandy neutral yellow mottled soils containing variable amounts of ironstone gravel in the surface sand.

Several areas subject to inundation are located in close proximity to the area under application and local groundwater ranges from brackish to saline. As the local area is highly cleared (it is within the EPA position statement No. 2 area which has identified this part of the state as being highly cleared), these areas appear to be salt affected.

Despite the sandy nature of the soils on site and proximity of areas subject to inundation, the area under application supports parkland cleared heathland vegetation in completely degraded (Keighery, 1994) condition and it is considered unlikely that clearing as proposed will exacerbate wind or water erosion of soils. It is likely to incrementally contribute to a salinity affected landscape. Thus clearing may be considered to be at variance to this principle.

Methodology References:

- site inspection (2008)
 - Northcote et al. (1960-68)
 - Keighery (1994)
- 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 likely to be at variance to this Principle

The nearest conservation area to the area under application is an un-named Nature Reserve located ~7 km south of the area under application.

During site inspection (2008) the area under application was observed to support parkland cleared heathland vegetation in completely degraded (Keighery, 1994) condition.

Within a 5 km radius of the area under application ~16% of native vegetation remains and the majority of this is composed of isolated paddock remnants like the area under application. The nearest remnant to the area under application is ~2 km to the west and the area under application does not form part of an ecologically significant linkage.

Given the degraded condition and isolation of the area under application it is considered unlikely that clearing as proposed will impact of the environmental values of any nearby conservation area and clearing is not considered likely to be at variance to this principle.

Methodology References:

- Site Inspection (2008)
 - Keighery (1994)
- GIS Databases:
- NLWRA, Current Extent of Native Vegetation 20 Jan 2001
 - CALM Managed Lands and Waters - CALM 01/06/05
 - Esperance 1.4m Orthomosaic - Landgate 2002

(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

Several wetlands and watercourses are located within close proximity to the area under application with the nearest wetland being a non-perennial swamp and associated marshland located ~4.5 km north of the area under application and the nearest watercourse being a tributary of Coobidge Creek located ~2.6 km east of the area under application. Several small areas subject to inundation are located in close proximity to the area under application, with the nearest being ~800m north of the area under application.

During site inspection (2008) the area under application was observed to support deep rooted perennial heathland vegetation in completely degraded (Keighery, 1994) condition.

Several areas subject to inundation are located in close proximity to the area under application and local groundwater ranges from brackish to saline. As the local area is highly cleared (it is within the EPA position statement No. 2 area which has identified this part of the state as being highly cleared), these areas appear to be salt affected. It is likely to incrementally contribute to a salinity affected landscape. Thus clearing may be

considered to be at variance to this principle.

- Methodology** References:
- site inspection (2008)
 - Keighery (1994)
- GIS Databases:
- Hydrography, linear - DOW 13/7/06
 - Hydrography, linear (hierarchy)

(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**
Several small areas subject to inundation are located in close proximity to the area under application, with the nearest being ~800m north of the area under application.

During Site Inspection (2008) the area under application was observed to support deep rooted perennial heathland vegetation in completely degraded (Keighery, 1994) condition.

Given the size of the area under application and condition of the vegetation on site it is considered unlikely that clearing will cause or exacerbate the incidence or intensity of flooding in the local area despite the sites proximity to areas of inundation. Given this clearing is not considered likely to be at variance to this principle.

- Methodology** References:
- Northcote et al. (1960-68)
 - Site Inspection (2008)
 - Keighery (1994)
- GIS Databases:
- Hydrography, linear - DOW 13/7/06
 - Hydrography, linear (hierarchy)

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

Comments
The area under application is not within a RIWI Act area or a CAWS Act area.

The proposed clearing is within the Intensive Land-use Zone (Shepherd et al, 2001) and is located in the area defined in EPA Position Statement No. 2 (EPA, 2000). Significant clearing of native vegetation has already occurred within this area and 'from an environmental perspective the EPA is of a view that it is unreasonable to expect to be able to continue to clear native vegetation from land within the agricultural area other than relatively small areas and where alternative mechanisms for protection biodiversity are addressed' (EPA, 2000). The area under application is for 1 ha in a completely degraded (Keighery 1994) condition with little biodiversity value and it is unlikely to continue existing without intensive management (ie natural recruitment is unable to occur).

- Methodology** EPA (2000)
Keighery (1994)
Shepherd et al. (2001)
- GIS Databases:
- CAWSA Part IIA Clearing Control Catchments
 - RIWI Act, Areas

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 Principles (e), (g) and (i).

5. References

- Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- 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.
- Garnett, S.T. and Crowley G.M. (2000). The Action Plan for Australian Birds 2000. Canberra, Environment 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. (2006). 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.
- 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.
- Site Inspection. (2008). Regional Advice Report, clearing permit application CPS2637/1. Perth, Western Australia, Department of Environment and Conservation. TRIM Ref. DOC58312.
- Western Australian Herbarium (1998-). FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.calm.wa.gov.au/> (Accessed 03 September 2008).

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)