



1. Application details

1.1. Permit application details

Permit application No.: 1649/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Corrigin
Postal address: Po Box 221 Corrigin WA 6375
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1.3. Property details

Property:

Colloquial name: Rabbit proof Fence Rd

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.3		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: Medium woodland; York gum, wandoo and salmon gum (E. salmonophloia)	The proposal includes the clearing of 1.3 hectares of native vegetation on the eastern side of the road reserve for the purpose of road widening. The vegetation under application comprises Eucalyptus loxophleba (York gum) and Eucalyptus salmonophloia (Salmon Gum), with no understorey in most areas except for an occasional Acacia species, weeds and grasses. Vegetation is mostly in a degraded condition with a small portion being in good condition.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation clearing description based on site photos and a vegetation description provided by the Shire of Corrigin (DEC TRIM ref. DOC13901). Vegetation ranges in condition from Completely Degraded to Good within an average condition of Degraded.

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 may be at variance to this Principle

The vegetation under application within the Rabbit Proof Fence Road reserve is in a completely degraded to good condition and may include Declared Rare Flora (DRF) species that have been identified within the local area (15km radius).

The Shire of Corrigin and the vegetation association identified within the applied area have 4.9% and 5.5% respectively of pre-European vegetation extent remaining and are considered to be endangered for biodiversity conservation (Department of Natural Resources and Environment 2002; Shepherd et al. 2001).

Given the low vegetation representations within the vegetation association and within the Shire of Corrigin, it is considered that vegetation in a degraded or better condition can significantly contribute to the conservation of biodiversity. It is therefore considered that the vegetation under application may comprise a high level of biodiversity, especially in a local context. A condition will be placed on the permit requiring the permit holder to provide and implement an offset to counterbalance the loss of the environmental values of the native vegetation cleared.

Methodology Department of Natural Resources and Environment (2002)
Shepherd et al. (2001)
Shire of Corrigin site photos (2006)

(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 vegetation under application includes mainly *Eucalyptus loxophleba* (York gum) with some *E. salmonophloia* (Salmon Gum), with some areas including an understorey of *Acacia* shrub. BCS (2006) advice for road reserves in another Shire stated 'although (York Gum) can develop hollows, they are typically too small to offer habitat for Cockatoos from the *Calyptorhynchus* genus and are more readily occupied by smaller and more common avian taxa.'

The vegetation under application that comprises understorey has the potential to provide some habitat for ground-dwelling fauna, however the proposed clearing will occur only on the eastern side of the road reserve, thus preserving a wider vegetated remnant on the western side that would be more valuable as a corridor.

Given the limited use of the hollows provided by the York Gum, and given that vegetation will be retained on the western side of the road reserve, it is not considered likely that the vegetation under application comprises significant habitat for indigenous fauna.

Methodology BCS (2006)

(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

Within a 15km radius of the applied area there are 8 known occurrence of Declared Rare Flora (DRF) species, the nearest of which is a DRF species located 9.1km to the northwest. There are also 12 known occurrences of Priority species within a 15km radius. Of the DRF species *Rhizanthella gardneri* and *Grevillea scapigera* are located within the same vegetation and soil associations as the applied area.

Rhizanthella gardneri is located approximately 9.1km to the northwest of the applied area. This species is described as a 'tuberous, perennial herb, with flowers developing under the surface and breaking through as they mature; flowers pink, purple in May-Jul.; and grows in sand in association with *Melaleuca uncinata*' (Western Australian Herbarium 2003).

Grevillea scapigera is located approximately 11km to the west of the applied area. This species is described as a 'suckering, prostrate to weakly ascending shrub, 0.15-0.4 m high, up to 1.8 m wide with flowers white, yellow, green in Feb/Oct-Nov; grows in sandy or gravelly lateritic soils' (Western Australian Herbarium 2003).

Given that a portion of the vegetation under application is in good condition, and that suitable habitat for the above DRF species may be present, there is the potential that the vegetation under application may include, or be necessary for the continued existence of, rare flora. Where road reserve with intact understorey exists, given the presence of DRF and Priority flora within the local area, appropriately timed flora surveys would be required to be undertaken as this proposal may be at variance with this principle.

Methodology Western Australian Herbarium (2003)
GIS Databases:
Declared Rare and Priority Flora List - CALM 01/07/05
Pre-European Vegetation - DA 01/01
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 occurrences of Threatened Ecological Communities (TEC) within a 50km radius of the area under application. Given this, and the degraded condition of the majority of the vegetation under application, it is not considered likely to comprise, or be necessary for the maintenance of, a TEC.

Methodology GIS Database: Threatened Ecological Communities - CALM 12/4/05

(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 at variance to this Principle

The vegetation under application is identified as Beard vegetation association 1023, which is classified as medium woodland; York gum, wandoo and salmon gum, has a representation of 5.5% of the pre-European extent remaining and is considered to be endangered (Department of Natural Resources and Environment 2002; Shepherd et al. 2001). The vegetation within the Shire of Corrigin is also considered to be endangered, with 5.5% of pre-European extent remaining (Shepherd et al. 2001).

A portion of the applied vegetation is in good condition and is part of vegetation association 1023, of which there is less than the recommended minimum of 30% pre-European extent remaining. In addition, the Shire of Corrigin has been extensively cleared for agriculture, with less than the recommended 30% of pre-European vegetation remaining. It is therefore considered that the clearing as proposed is at variance to this Principle. A condition will be placed on the permit requiring the permit holder to provide and implement an offset to counterbalance the loss of the environmental values of the native vegetation cleared.

Pre-European area (ha)	Current extent (ha)	Remaining %	Conservation status***	
Avon Wheatbelt	9,578,995	1,536,296	16.0*	Vulnerable
Shire of Corrigin	267,786	13,047	4.9*	Endangered
Beard association 1023	1,698,453	98,709	5.5**	Endangered

* (Shepherd et al. 2001)

** (EPA, 2003)

*** (Department of Natural Resources and Environment 2002)

Methodology Department of Natural Resources and Environment (2002)
EPA (2000)
Shepherd et al. (2001)
GIS Databases:
Pre-European Vegetation - DA 01/01

(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

The nearest mapped watercourses to the area under application is located approximately 2.2km to the west. From the aerial photographs there also appears to be two unmapped watercourses dissecting the applied area at the northern end and at 1.6km north of the southern end.

It is possible that although the watercourses are not mapped there may be vegetation growing in association, however it is likely to be limited in extent. Given this the proposed clearing may be at variance to this Principle.

A condition will be placed on the permit requiring the permit holder to provide and implement an offset to counterbalance the loss of the environmental values of the native vegetation cleared.

Methodology GIS Databases:
Corrigin North 1.4m Orthomosaic - DOLA 01
Hydrography, linear (hierarchy) - DOW

(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 area under application is described as having gently undulating to rolling terrain with some ridges and uneven slopes. Soils within the applied area are defined as hard alkaline yellow mottled soils and hard alkaline red soils (Western Australia Department of Agriculture 2004).

The majority of the applied area is associated with a low to nil risk of salinity with the exception of approximately 250m of medium to high salinity risk that is associated with two unmapped watercourses. Given the area under application has a low density of trees over a length of road reserve of approximately 3.5km long. The clearing as proposed is therefore not likely to have a severe impact on salinity in the area.

The main land degradation risk associated with the removal of vegetation on the identified soil type is considered to be water erosion; however the vegetation under application is of low density over 3.5 km within a low rainfall area. It is therefore not considered likely that the proposed clearing would result in appreciable land degradation.

Methodology Western Australia Department of Agriculture (2004)
GIS Databases:
Rainfall, Mean Annual - BOM 30/09/01
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 are two areas reserved for conservation purposes within a 10km radius of the applied area, the closest of which is a nature reserve located 7.4km to the south of the southern extent of the proposed clearing. Sewell Nature Reserve is also located 9.8km to the southwest of the southern extent.

The proposed clearing will occur only on the eastern side of the road reserve, thus preserving a wider vegetated remnant on the western side that would be more valuable as a corridor. Given this, and the distance to the nearest conservation reserve, it is not considered likely that the environmental values of these reserves would be impacted.

Methodology GIS Database: CALM Managed Lands and Waters - CALM 1/07/05

(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

Groundwater salinity in the local area is 7000-14000 mg/L and the area under application is not located within a Public Drinking Water Source Area (PDWSA). Watercourses mapped in the area are located 2.2km to the west, 2.6km to the south of the southern extent and 2.7km to the east.

The vegetation under application is 1.3 hectares over a 3.5km length of existing road reserve and therefore the proposed clearing is not likely to significantly alter surface water flow regimes or groundwater levels. In addition, the distance to the nearest watercourse means that its water quality is not likely to be affected by the proposed clearing. The proposal is therefore not considered likely to be at variance to this Principle.

Methodology GIS Databases:
Groundwater Salinity, Statewide - 22/02/00
Hydrography, linear (hierarchy) - DOW
Public Drinking Water Source Areas (PDWSAs) - DOE 07/02/06

(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 approximately 2.2km to the east of the nearest watercourse, at an elevation of 10 metres. The proposed clearing includes 1.3 hectares of vegetation over a 3.5km length and therefore it is not considered likely that the removal of vegetation from site would have an impact on peak flood height or duration.

Methodology GIS Databases:
Hydrography, linear (hierarchy) - DOW
Topographic Contours, Statewide - DOLA 12/09/02

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

The area under application is located within a Native Title Claim area; however it is contained within an existing road reserve that is vested in the Shire of Corrigin. Therefore the clearing as proposed should not fall under the future acts process of the Native Title Act 1993.

Methodology GIS Database: Native Title Claims - DLI 7/11/05

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Road construction or maintenance	Mechanical Removal	1.3	Grant	The assessable criteria have been assessed, and the clearing as proposed is at variance to Principle e, and may be at variance to Principles a, c and f. Principle (a + c): A portion of the vegetation under application is in good condition and therefore may contain DRF and be representative of an area of higher biodiversity when viewed in a local context. The assessing officer therefore recommends that conditions requiring flora surveys along this road be conducted and that offsets be implemented.

Principle (e): The applied vegetation, including a portion that is in good condition, is part of a Beard vegetation association that has less than the recommended minimum of 30% pre-European extent remaining. The assessing officer therefore recommends that a condition be placed on the permit to ensure an offset is required.

Principle (f): A portion of the vegetation under application may include wetland dependent vegetation, however the extent of this vegetation is likely to be limited. The assessing officer therefore recommends that a condition be placed on the permit to ensure an offset is required.

The assessing officer therefore recommends that the permit be granted with conditions requiring the provision and implementation of an offset to address the loss of environmental values associated with clearing, and a condition to conduct an appropriately timed flora survey to identify any DRF species.

5. References

- Clearing Assessment Unit's biodiversity advice for land clearing application. Advice to Director General, Department of Environment and Conservation (DEC), Western Australia. TRIM ref xxxxx
- 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.
- EPA (2003) Guidance for the Assessment of Environmental Factors -level of assessment of proposals affecting natural areas within the System 6 region and Swan Coastal Plain portion of the System 1 Region. Report by the EPA under the Environmental Protection Act 1986. No 10 WA.
- 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.
- Shire of Corrigin site photos TRIM ref DOC14162.
- Western Australia Department of Agriculture (2004) Soil-landscape mapping, Western Australia Department of Agriculture, Date accessed 01/05/04.
- Western Australian Herbarium, Department of Environment and Conservation. Text used with permission (<http://florabase.calm.wa.gov.au/help/copyright>). Accessed on Friday, 19 January 2007

