



1. Application details

1.1. Permit application details

Permit application No.: 2173/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Geoffrey Robert Allen

1.3. Property details

Property: ROAD RESERVE (GREENHILLS 6302)
 Local Government Area: Shire Of York
 Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.6		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 352: Medium woodland; york gum. (Shepherd, 2006)	The area under application (1.6ha native vegetation within a 3.8ha area) is located within a section of road reserve, Needling Hills Road (Road Reserve 824), from Mackie Road to Taylor Road. The clearing is for the construction of an 8m wide x 2.0km long road to gain access to otherwise, land locked farming properties.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The condition of the native vegetation under application was sourced from the Site Inspection (2007). The condition of the vegetation varied from completely degraded to good with the overall condition considered to be degraded.
	The vegetation within the area under application was predominantly sheoak (<i>Allocasuarina huegeliana</i>) with some wandoo (<i>Eucalyptus wandoo</i>) and jam trees (<i>Acacia acuminata</i>). The area under application (road reserve) was mostly devoid of native vegetation in the middle storey and lower storey, except in the northern and north-eastern sections, where the native vegetation included poison pea (<i>Gastrolobium</i> sp.) and prickly moose (<i>Acacia pulchella</i>) (Site Inspection, 2007). The lower storey within the road reserve was mainly wild oats with <i>Juncus acutus</i> occurring along the drainage lines (Site Inspection, 2007).		

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 vegetation within the area under application was predominantly sheoak (*Allocasuarina huegeliana*) with some wandoo (*Eucalyptus wandoo*) and jam trees (*Acacia acuminata*). The area under application (road reserve) was mostly devoid of native vegetation in the middle storey and lower storey, except in the northern and north-eastern sections, where the native vegetation included poison pea (*Gastrolobium* sp.) and prickly moses (*Acacia pulchella*) (Site Inspection, 2007). The lower storey was mainly wild oats with *Juncus acutus* occurring along the drainage lines (Site Inspection, 2007). The condition of the vegetation varied from completely degraded to good with the overall condition considered to be degraded.

Given the sparseness of the vegetation under application and the level of disturbance from wild oats invasion it is considered unlikely that the area under application comprises a high level of biological diversity.

Methodology Reference:
- Site Inspection (2007)

(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**

No fauna species of conservation significance have been recorded within the local area (10km radius). The nearest recorded fauna species is the Water rat (*Hydromys chrysogaster*), located approximately 12km west of the area under application.

The condition of the vegetation varied from completely degraded to good with the overall condition considered to be degraded. The vegetation within the area under application was predominantly sheoak (*Allocasuarina huegeliana*) with some wandoo (*Eucalyptus wandoo*) and jam trees (*Acacia acuminata*). The area under application was mostly devoid of native vegetation in the middle storey and lower storey, except in the northern and north-eastern sections, where the native vegetation included poison pea (*Gastrolobium* sp.) and prickly moses (*Acacia pulchella*) (Site Inspection, 2007), which would provide minimal habitat value for ground dwelling fauna. The lower storey was mainly wild oats with *Juncus acutus* occurring along the drainage lines (Site Inspection, 2007). Furthermore, no hollows were observed within the area under application.

Given that the area under application is mostly devoid of middle and lower story, there are hollows and that the overall condition of the vegetation under application is degraded, the vegetation under application is not considered to be significant for native fauna; therefore the clearing as proposed is considered unlikely to be at variance to this Principle.

Methodology Reference:
- Site Inspection (2007)
GIS Database:
- SAC Bio Datasets 18/12/2007

(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 25 known records of the Declared Rare Flora (DRF) species *Thomasia glabripetala* within the local area (10km radius). The closest known populations of *Thomasia glabripetala* are located approximately 1.9km and 2.2km south of the area under application, on the same soil type and within the same vegetation association as the vegetation applied to be cleared.

Thomasia glabripetala is an upright shrub approximately 1m high and forms part of the open scrub layer in wandoo woodlands, on deep yellow sand over gravel; and flowers mid-September to late October (Brown et al, 1998).

However, the vegetation within the area under application was predominantly sheoak (*Allocasuarina huegeliana*) with some wandoo (*Eucalyptus wandoo*) and jam trees (*Acacia acuminata*) (Site Inspection, 2007). The area under application was mostly devoid of native vegetation in the middle storey and lower storey, except in the northern and north-eastern sections, where the native vegetation included poison pea (*Gastrolobium* sp.) and prickly moses (*Acacia pulchella*) (Site Inspection, 2007). The overall condition of the vegetation was considered to be degraded (Site Inspection, 2007).

In addition, five Priority flora species are known to occur within the local area (10km radius), the closest being a population of *Calothamnus rupestris* located approximately 630m from the applied area. Of these Priority species *Boronia penicillata* (Priority 3) and *Darwinia thymoides* subs. *bella* (Priority 4) are known to occur within the same vegetation association and on the same soil type as the vegetation under application.

Given the vegetation under application is predominantly sheoaks with a sparse middle and lower storey it is considered unlikely to include the Declared Rare Flora, *Thomasia glabripetala*. Therefore, the clearing is considered unlikely to be at variance to this Principle.

Methodology Reference:
 - Site Inspection (2007)
 GIS Databases:
 - Pre-European Vegetation - DA 01/01
 - SAC Bio Datasets 18/12/2007
 - 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 Threatened Ecological Communities (TECs) located within the local area (10km radius). The nearest recorded Ecological Communities, being a Priority Ecological Community (PEC), is located approximately 11.1km west of the area under application. This PEC has been identified as being Deep pools of the Avon Botanical District. . It is therefore unlikely that the vegetation proposed to be cleared comprises the whole or part of or is necessary for the maintenance of a TEC.

Methodology GIS Database:
 - SAC Bio Datasets 18/12/2007

(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 area of vegetation under application is located within the Intensive Land Use Zone (Shepherd et al. 2001) and is also located within the area defined in EPA Position Statement No. 2 (EPA 2000). EPA Position Statement No. 2 (EPA 2000) states that ?clearing and consequential salinity are having a devastating effect on biodiversity through the direct loss of plant species, and the associated loss of mammals, birds and other animals which depend upon sufficiently large areas of healthy bush for food and shelter.? Further, ?the EPA is of the 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 protecting biodiversity are addressed? (EPA 2000).

The vegetation under application is identified as Beard vegetation type 352, of which there is 16.6% of native vegetation remaining (Shepherd, 2006). In addition, the area under application is located within the Avon Wheatbelt Bioregion, of which there is 15.4% of native vegetation remaining.

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents the clearance of ecological communities with an extent below 30% of that present Pre-European settlement (Commonwealth of Australia, 2001). The Beard vegetation type in the area under application is below the recommended minimum of 30% representation. Further, aerial imagery and vegetation mapping of the local area (10km radius) shows <10% remnant vegetation to be remaining.

Given that there is 15.4% of Pre-European extent remaining in the Bioregion and 16.6% of Pre-European extent remaining of the Beard vegetation type, the clearing as proposed is considered at variance to this Principle.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	In secure tenure (%)
IBRA Bioregion**				
Avon Wheatbelt	9,517,117	1,468,711	15.4	-
Shire of York*	214,963	66,264	30.8	-
Local Area (10km radius)	31,415	2,833	9.0	-
Beard vegetation type**				
352	724,296	119,957	16.6	10.2

* (Shepherd et al, 2001)
 ** (Shepherd, 2006)

Methodology References:
 - Commonwealth of Australia (2001)
 - EPA (2000)
 - Shepherd et al (2001)

- Shepherd (2006)
- GIS Databases:
 - EPA Position Paper No 2 Agriculture Region - DEP 12/00
 - Interim Biogeographic Regionalisation of Australia - EA 18/10/00
 - NLWRA, Current Extent of Native Vegetation - DA 30/01/01
 - Northam 1m Orthomosaic - DLI 12/03

(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

Tributaries (minor non-perennial watercourses) of Mackie River, which is located 2.2km south, intersect the area under application at two points. In addition, there are no wetlands or lakes within the local area (10km radius).

The vegetation within the area under application (road reserve) was predominantly sheoak (*Allocasuarina huegeliana*) with some wandoo (*Eucalyptus wandoo*) and jam trees (*Acacia acuminata*). The lower storey within the road reserve was mainly wild oats with *Juncus acutus* occurring along the drainage lines (Site Inspection, 2007). The overall condition of the vegetation was considered to be degraded (Site Inspection, 2007).

Given the native vegetation under application is in a degraded condition and the dominant vegetation associated with the minor non-perennial watercourses is a weed species, *Juncus acutus*, the clearing as proposed is considered unlikely to be at variance to this Principle.

- Methodology** GIS Databases:
- Geodata, Lakes
 - Hydrography, linear - DOE 01/02/04

(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 landform of the area under application and its surrounds can be described as undulating terrain with ridges, spurs, and lateritic mesas and buttes (Northcote et al, 1960). The chief soils are yellow mottled soils, containing ironstone gravels (Northcote et al, 1960). These soils are not considered to be at risk of wind erosion and may be at risk to water erosion.

The area under application is located mid to lower slope in the landscape with tributaries of Mackie River (minor non-perennial watercourses) intersecting the area under application at two points. The clearing as proposed may result in an increase in surface water runoff causing erosion gullies.

Management actions to be undertaken include road storm culverts to maintain natural flow water regimes and retaining mature wandoo trees, which will assist in the avoidance of long-term land degradation (Site Inspection, 2007). In addition, due to the small scale of the proposed clearing and its linearity (8m wide x 2.0km long; total 1.6ha), it is considered may be to cause appreciable land degradation.

- Methodology** References:
- Northcote et al (1960)
 - Site Inspection (2007)
- GIS Database:
- 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 conservation reserves within the local area (10km radius), being an un-named Nature Reserve (ID 40642) 3.3km west and Wallaby Hills Nature Reserve 8.0km north-east of the area under application. In addition, aerial mapping of the local area confirms limited connectivity from the area under application to the conservation areas. In addition, the overall condition of the native vegetation was considered to be degraded (Site Inspection, 2007).

Given the distance of the area under application to the reserves, the degraded condition of the native vegetation and the limited connectivity it is unlikely that the clearing of the vegetation under application will impact on the environmental values of the conservation areas.

- Methodology** Reference:
- Site Inspection (2007)

GIS Databases:
- DEC Managed Lands and Waters - CALM 1/07/05
- Northam 1m Orthomosaic - DLI 12/03

(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

Tributaries (minor non-perennial watercourses) of Mackie River, which is located 2.2km south, intersect the area under application at two points. In addition, there are no wetlands or lakes within the local area (10km radius). The area under application is not located in a Public Drinking Water Source Area.

The clearing as proposed may result in an increase in surface water runoff, given the gravel in the surface horizons and the associated water erosion risk, leading to increase sedimentation of the Mackie River. Further, there is low to high salinity risk with the two points associated with the minor non-perennial watercourses.

Given the water erosion risk resulting in increase sedimentation of the Mackie River and the potential salinity risk, the clearing as proposed is considered to may be cause deterioration in the quality of surface water.

Methodology GIS Databases:
- Geodata, Lakes
- Hydrography, linear - DOE 01/02/04
- Public Drinking Water Source Areas (PDWSAs) ? DOW
- Salinity Risk LM 25m - DOLA 00
- Soils, Statewide - DA 11/99

(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

Tributaries (minor non-perennial watercourses) of Mackie River, which is located 2.2km south, intersect the area under application at two points. In addition, there are no wetlands or lakes within the local area (10km radius).

The vegetation within the area under application was predominantly sheoak (*Allocasuarina huegeliana*) with some wandoo (*Eucalyptus wandoo*) and jam trees (*Acacia acuminata*). The area under application was mostly devoid of native vegetation in the middle storey and lower storey, except in the northern and north-eastern sections, where the native vegetation included poison pea (*Gastrolobium* sp.) and prickly moses (*Acacia pulchella*) (Site Inspection, 2007). The lower storey was mainly wild oats (Site Inspection, 2007). The overall condition of the vegetation was considered to be degraded (Site Inspection, 2007).

Given the native vegetation under application is in a degraded condition, the clearing as proposed is unlikely to cause or increase the incidence or intensity of localised flooding. In addition, due to the small scale of the proposed clearing and its linearity (8m wide x 2.0km long; total 1.6ha) the clearing as proposed is considered to be unlikely to be at variance to this Principle.

Methodology Reference:
- Site Inspection (2007)
GIS Databases:
- Geodata, Lakes
- Hydrography, linear - DOE 01/02/04

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

Comments

The area under application is within the Proclaimed Surface Water Area of Avon River Catchment. Therefore any abstraction of surface water above the riparian rights (>1,500kL) would require a licence. However, this application is for construction of a road; therefore is not associated with surface water abstraction.

There is no other RIWI Act Licence, Works Approval or EPA Act Licence that affects the areas under application.

The Roadside Conservation Committee (RCC, 2007) advised that the vegetation within the unmade road reserve appears, from aerial imagery, to be in a relatively poor condition and sparse. However, it does play a role in connecting the small clump of trees at the end of the proposed access road to other parts of the landscape. RCC (2007) recommends that the landowner buy land from the adjoining property owners and construct the road parallel to the existing road reserve.

The Shire of York (2007a) has given written authorisation for Mr Allen (Applicant) to undertake the clearing within the area under application.

The Shire of York (2007b) advised that the Shire has no objection to the clearing application as it relates to a gazetted road reserve servicing a number of lots, which would otherwise, be land locked. It is acknowledged that there are high conservation values in the Needling Hills locality; however the proposed clearing would not to the knowledge of the Shire of York have a detrimental impact.

There is no alternative public road access to the lots other than this section of Needling Hills Road, which has not been cleared and developed previously due to the common land ownership of the lots. As the individual titles are legal entities, able to be traded and sold, the application can be supported.

The area under application is zoned Road under Town Planning Scheme No 2.

Methodology

References:

- RCC (2007)
 - Shire of York (2007a)
 - Shire of York (2007b)
- GIS databases:
- RIWI Act, Surface Water Areas - WRC 18/10/02
 - Town Planning Scheme Zones - MFP 8/98

4. Assessor's comments

Purpose	Method Applied	area (ha)/ trees	Comment
Road construction or maintenance	Mechanical Removal	1.6	The assessable criteria have been addressed and the clearing as proposed is at variance to Principle (e) and may be at variance to Principles (g) and (i).

5. References

Commonwealth of Australia (2001). National Targets and Objectives for Biodiversity Conservation 2001-2005, AGPS, Canberra.

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.

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.

RCC (2007) Direct Interest Submission from the Roadside Conservation Committee. TRIM Ref DOC41339

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.

Shire of York (2007a) Fax - Written authorisation for Mr Allen to undertake clearing within road reserve. TRIM Ref DOC39353

Shire of York (2007b) Direct Interest Submission from the Shire of York. TRIM Ref DOC41534

Site Inspection (2006) Site Inspection Report, Department of Environment and Conservation (DEC), Western Australia. TRIM Ref ED2048

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

