



1. Application details

1.1. Permit application details

Permit application No.: 1880/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Shire of York

1.3. Property details

Property: LOT 29140 ON PLAN 218541
Local Government Area: Shire Of York
Colloquial name:

1.4. Application

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

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
<p>Beard Vegetation Association: 946: Medium woodland; wandoo. (Hopkins et al. 2001, Shepherd 2006)</p>	<p>The proposal includes clearing of 0.048ha native vegetation on Mt Bakewell Reserve 17487, vested with the Shire of York for the purpose of grazing and parkland, to reopen and expand the Southwest paragliding and hang gliding launch site.</p> <p>Mt Bakewell is on the southern edge of the Dyott Range approximately 300m above the surrounding plain. The Reserve is largely undisturbed native vegetation except for areas allocated to communications infrastructure and access tracks.</p> <p>There is evidence of previous disturbance to the vegetation on site resulting from clearing of the old Southwest glider launch site (~100m²) and access tracks.</p> <p>Photographs provided in the Hang Gliders Associations (2006) Environmental Management Plan depict shrub regrowth in the previously cleared launch site. The remaining area under application adjacent to this previously cleared launch site consists of a dense <i>Allocasuarina huegeliana</i> over storey with sparse understorey species.</p>	<p>Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)</p>	<p>Vegetation clearing description is based on information obtained from the Hang Gliders Association Mount Bakewell SW Launch Environment Management Plan (Hang Gliders Association 2006) (TRIM Ref: DOC28291)</p>

A flora survey conducted on site in September 2006 by the River Conservation Society of York (2006) found flowering perennials and woody shrubs on the previously cleared area but little evidence of the understorey species in the adjacent area dominated by *Allocasuarina huegeliana*.

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 includes clearing of 0.048ha on Mt Bakewell Reserve 17487, which is a relatively large, significant remnant of 350 ha, in a substantially cleared agricultural landscape. The Reserve is vested with the Shire of York for the purpose of grazing and parkland, and the proposed clearing is to reopen and expand the Southwest paragliding and hang gliding launch site.

Mt Bakewell Reserve comprises of predominantly undisturbed native vegetation, with areas of isolated disturbance associated with communications infrastructure and access tracks (Hang Gliders Association, 2006). The area under application (0.048ha) has partly been disturbed by the clearing of the old Southwest glider launch site (~100m²), which now primarily contains flowering perennials and woody shrubs, with adjacent areas proposed for expansion being a woodland dominated by *Allocasuarina huegeliana* with very little understorey.

Given the disturbance to the area, the vegetation under application is not considered to comprise a high level of biodiversity, and certainly not a higher level than that in the existing intact vegetation in the surrounding Reserve.

Methodology **References:**
- Hang Gliders Association (2006) (TRIM Ref: DOC28291)
GIS Databases:
- Cadastre - DLI
- Northam 1m Orthomosaic - DLI 12/03
- Pre-European Vegetation - DA 01/01

(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 is located within Mt Bakewell Reserve 17487. This Reserve is approximately 350ha in size, and is considered a significant remnant in an area which has been extensively cleared for agriculture. The vegetation applied to be cleared is primarily shrub regrowth in the previously cleared launch site, surrounded by dense *Allocasuarina huegeliana* woodland with sparse understorey, considered to be in very good condition.

Database searches indicate that there are three fauna species of conservation significance identified within 10km radius of the applied area. The closest sighting was *Idiosoma nigrum* (Shield-backed Trapdoor Spider) approximately 3km south of the applied area. Other conservation species observed in the local area (~10km) include *Hydromys chrysogaster* Water Rat (Priority 4) and *Lagostrophus fasciatus fasciatus* Banded Hare-wallaby (Vulnerable)

Given the relatively small size (0.048ha) of the applied area and the extent of vegetation in the Reserve (approximately 350ha), it is considered unlikely that the vegetation under application comprises of significant habitat for indigenous fauna.

Methodology **GIS Databases:**
- Cadastre - DLI
- Northam 1m Orthomosaic - DLI 12/03
- SAC Bio datasets 11/07/2007

(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

Declared Rare and Priority Flora mapping identifies 6 records of 3 species of Declared Rare Flora, and 51 records of 9 species of Priority Flora, within a five kilometre radius of the area under application. Of these species, it is considered that *Caladenia integra* (P4), *Hemigenia platyphylla* (P4), *Hibbertia montana* (P4) and *Senecio gilbertii* (P1) may be present, due to their proximity and habitat preferences.

A flora survey of the applied area, undertaken in September 2006, identified two Priority 4 species, *Hemigenia platyphylla* and *Hibbertia montana*, in the area under application (River Conservation Society 2006). In addition, other populations of these Priority species were identified within 500 meters of the area under application within the Reserve.

Given that this proposal will result in removal of these Priority species it is considered that the proposed clearing may be at variance to this Principle.

Methodology

References:
 - River Conservation Society 2006 (TRIM Ref: DOC29139)
 GIS Databases:
 - SAC Bio datasets 13/07/2007

(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

Database searches indicate that there no records of Threatened Ecological Communities (TEC) within 10km of the area under application. The nearest ecological community of conservation significance (Priority Ecological Community) is the 'Deep Pools of the Avon Botanical District', located approximately 6km south of the proposed area on the Avon River.

Given the nature of the vegetation under application and the distance to the nearest TEC, it is considered unlikely that the vegetation applied to be cleared is part of a TEC.

Methodology

GIS Databases:
 - Clearing Regulations - Environmentally Sensitive Areas - DOE 30/5/05
 - SAC Bio datasets 11/07/2007

(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 not likely to be at variance to this Principle

Vegetation within the area under application is identified as a component of Beard Vegetation Association 946 (Hopkins et al. 2001), which has a current representation level of 21.3% (Shepherd 2006).

The area under application (0.048ha) has partly been disturbed by the clearing of the old Southwest glider launch site, which now primarily contains flowering perennials and woody shrubs. Adjacent areas proposed for expansion of the launch site consist of a woodland dominated by *Allocasuarina huegeliana*, and contain little understorey.

The State Government is committed to the National Objectives Targets for Biodiversity Conservation 2001-2005 (AGPS 2001) which include a target which prevents clearance of ecological communities with an extent below 30% of that present pre-1750 (Commonwealth of Australia, 2001).

reserves/DEC-	Pre-European area (ha)	Current extent (ha)	Remaining %	Conservation status***	% in managed land
Avon Wheatbelt**	9,517,117	1,468,711	15.4%	Vulnerable	1.6%
Shire of York*	214,963	66,264	30.8%	Depleted	
Beard vegetation associations**					
- 946	53,226	11,321	21.3%	Vulnerable	8.7%

* (Shepherd et al. 2001)

** (Shepherd 2006)

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

Vegetation within the Avon Wheatbelt and Beard Vegetation Association 946 are below the State Government's National Objectives and Targets for Biodiversity Conservation of 30% and classed as vulnerable at 15.4% and 21.3% respectively.

The area under application is also located within an area identified in EPA Position Statement No. 2 (EPA 2000), which states that under the National Heritage Trust Partnership Agreements (current in 1999), all jurisdictions

(States) have committed to no clearing of endangered ecological communities.

However, it is not considered likely that the 480 square metres of native vegetation applied to be cleared can be considered significant as a remnant, given the areas historical disturbance and the levels of remnant vegetation present within the immediate surrounding area.

- Methodology** **References:**
- Commonwealth of Australia (2001)
 - Department of Natural Resources and Environment (2002)
 - EPA (2000)
 - Hopkins et al (2001)
 - Shepherd et al (2001)
 - Shepherd (2006)
- GIS Databases:**
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
 - Pre-European Vegetation - DA 01/01
 - EPA Position Paper No 2 Agriculture Region - DEP 12/00
 - 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 at variance to this Principle

There are no watercourses or wetlands within or in close proximity to the area under application. The closest watercourse is the Avon River, which is located approximately 1.5km south of the area under application.

Given the distance to the nearest watercourse and that the vegetation applied to be cleared is representative of upland vegetation (Hang Gliders Association, 2006 and River Conservation Society 2006) the clearing as proposed is not at variance to this Principle.

- Methodology** **References:**
- Hang Gliders Association (2006) (TRIM Ref: DOC28291)
 - River Conservation Society 2006 (TRIM Ref: DOC29139)
- GIS Databases:**
- ANCA, Wetlands - CALM 08/01
 - Geodata, Lakes - GA 28/06/02
 - 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 may be at variance to this Principle

The vegetation under application lies within soil unit JJ14. These soils are associated with steep granitic ranges and hills with bare rock walls. Chief soils are shallow sands and leached sands in colluvial positions (Northcote et al. 1960-68).

Salinity risk mapping does not identify a risk of salinity within the vegetation under application.

As the area under application is situated on the top, southwest side of Mt Bakewell, it is considered that this site may present a sufficient gradient such that the clearing of vegetation may contribute to an appreciable increase in the water erosion of soil. While it is acknowledged that the Hang Gliders Association (2006) Environmental Management Plan details management steps that may be taken to address potential erosion on site following clearing activities, the proposed clearing of native vegetation may still lead to appreciable land degradation in the form of water erosion, and thus may be at variance with this Principle.

- Methodology** **References:**
- Hang Gliders Association (2006) (TRIM Ref: DOC28291)
 - Northcote et al. (1960-68)
- GIS Databases:**
- Soils, Statewide - DA 11/99
 - Salinity Risk LM 25m - DOLA 00

(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 four DEC managed lands present in a 20km radius of the area under application. The closest of these is Wambyn Nature Reserve (~250ha), approximately 12km south west of the vegetation under

application. Given the distance to these reserves and the small size of the application the proposed clearing is not likely to impact on the environmental values of these reserves.

The vegetation under application is located near the centre of the Mt Bakewell Reserve which is vested with the Shire of York and zoned for grazing and parklands. Given the relatively small size of the vegetation under application (0.048 ha) and the existence of surrounding vegetation in the reserve, it is unlikely that clearing the proposed area will have an impact on local ecological corridors and linkages.

However, it is noted that the development of areas for recreation has the potential to increase edge effects in the form of weed invasion.

Methodology GIS Databases:
- CALM Managed Lands and Waters - CALM 1/07/05
- Clearing Regulations - Environmentally Sensitive Areas - DOE 30/5/05
- 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 is not likely to be at variance to this Principle**
The vegetation under application is located in the Swan Avon - Avon River Catchment and is not within any Public Drinking Water Source Areas (PDWSA) or PDWSA Protection Zones.

The vegetation under application lies within an area mapped with an average groundwater salinity >35,000 (TDS) mg/L. Salinity risk mapping does not indicate any risk of salinity associated with the area under application. Given the relatively small area of vegetation to be cleared (0.048 ha), it is considered the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Databases:
- Groundwater Salinity, Statewide - DOW
- Hydrographic Catchments - Subcatchments - DOW
- Public Drinking Water Source Areas (PDWSAs) - DOW

(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 on Mount Bakewell, approximately 1.5km from the Avon River, at an elevation of approximately 300 meters (Hang Gliders Association WA 2006). Given the size and location of the area under application, it is considered that the proposed clearing of native vegetation is unlikely to cause or exacerbate the incidence or intensity of flooding.

Methodology References:
- Hang Gliders Association (2006) (TRIM Ref: DOC28291)
GIS Databases:
- Evaporation Isopleths - BOM 09/98
- Hydrography, linear (hierarchy) - DOW
- Isohyets - BOM 09/98

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

Comments
The area under application is not associated with a Native Title Area or Aboriginal Site of Significance.

DEC Regional advice received (2007) indicates access to the current site is by means of an ill-defined kangaroo trail that is surrounded in parts by thick vegetation. DEC recognises that the trail, not within the area under application, may need to be upgraded and cleared. It is recommended that the Shire of York have adequate mechanisms in place to prevent erosion as a result of additional traffic in areas of steep terrain.

There is no required RIWI Act Licences, Works Approvals or EP Act Licences that affects the area under application.

Methodology References:
- DEC Regional Advice (2007) (TRIM Ref: DOC31729)
GIS Datasets:
- Aboriginal Sites of Significance - DIA
- Native Title Claims - DLI

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Recreation	Mechanical Removal	0.048	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 (c) and (g).	

5. References

- Commonwealth of Australia (2001). National Targets and Objectives for Biodiversity Conservation 2001-2005, AGPS, Canberra.
- DEC Regional Advice (2007). TRIM Ref: DOC31729
- 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 (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.
- Hang Gliders Association WA (2006). Mount Bakewell South-west Launch Environmental Management Plan. TRIM Ref: DOC28291
- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.
- 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.
- River Conservation Society (2006). Herbarium Species List for the Proposed Hang Gliders Site, Mt Bakewell Reserve. TRIM Ref: DOC29139
- 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.

6. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management
DAWA	Department of Agriculture
DEP	Department of Environmental Protection (now DoE)
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 DoE)

