



1. Application details

1.1. Permit application details

Permit application No.: 2501/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Northampton

1.3. Property details

Property: ROAD RESERVE (KALBARRI 6536)
 ROAD RESERVE (KALBARRI 6536)
 Local Government Area: Shire Of Northampton
 Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4.2		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 383: Shrublands; Acacia rostellifera scrub-heath.	The proposal is for the clearing of 4.2ha of native vegetation of good condition for the purpose of road construction and maintenance of the Red Bluff Road, Kalbarri.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Vegetation condition was determined from aerial mapping Kalbarri Anjana 80cm Orthomosaic (DLI 04/02).

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 applied area comprises of a scrub-heath of Acacia rostellifera. Larger areas of similar vegetation surround the applied area, and as such the biodiversity value of this area of vegetation is not likely to be significant.

There are 3 priority flora recorded in the local area. Beyeria cygnorum (Priority 3) 1.25km south, Frankenia confusa (Priority 2) 4.25km north east, and Triodia bromoides (Priority 4) located 1.91km north east of the application area. The district has advised that these species may occur at the proposed area. Advice from DEFL and WA herbarium show that Frankenia confusa occur mostly inland, Triodia bromoides north of the applied area, but there is the possibility that Beyeria cygnorum occurs at the site.

The local area is very well vegetated and the vegetation association of the site is well represented. The proposed clearing is linear and along an existing road. Therefore, the area proposed to be cleared is unlikely to represent high level of biological diversity in the local context and therefore is not likely to be at variance to this principle.

Methodology **References:**
 - District advice
 - WA Herbarium Records
 - Declared Rare and Priority Flora List

GIS Database:
 - Beard Vegetation Complexes
 - Clearing Regulations - Environmentally Sensitive Areas
 - EPA Position Paper No 2 Agriculture Region

(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

There are 6 recorded occurrences of 2 species of declared threatened fauna within the local area (10km radius), namely *Leipoa ocellata* (Malleefowl) (3.6km southeast) and *Macropus eugenii derbianus* (Tammar Wallaby) (6.9km north east). Both have been associated with the same vegetation as the proposed clearing.

While the 2 fauna species may utilize the proposed areas, there are larger areas of similar vegetation within the surrounding areas that can be utilized. Thus the application area is not considered to be a significant habitat for the recorded locally occurring fauna.

The proposed area for clearing is therefore considered not likely to represent significant habitat for indigenous fauna and is not likely to be at variance to this principle.

Methodology GIS Database:
- Fauna
- Beard Vegetation Complexes
- Soils, Statewide

(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

Within the local area (10km radius), 2 declared rare flora species (*Stachystemon nematophorus* and *Lechenaultia chlorantha*) have been recorded within the same vegetation and soil types. However, these occur further south and advice from the District Manager is that they are unlikely to occur at the proposed clearing site.

The proposal is not likely to be at variance to this principle.

Methodology Reference:
- District advice

GIS Database:
- Beard Vegetation Complexes
- Soils, Statewide
- DEFL feb08

(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 at variance to this Principle

There are no Threatened Ecological Communities (TEC) within a 10km radius of the applied area.

The clearing as proposed is not at variance to this principle as there are no TECs associated with the applied area.

Methodology GIS Database:
- Sac Bio Datasets (TEC and PEC points)
- Sac Bio Datasets (buffers 08)
- Beard Vegetation Complexes
- Soils, Statewide

(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

The vegetation within the application area is a component of Beard Vegetation Association 383 (Hopkins et al. 2001) of which there is approximately 92.8% of the pre-European extent remaining (Shepherd, 2006). This vegetation type is therefore of 'least concern' for biodiversity conservation (Department of Natural Resources and Environment 2002).

The local area is approximately 80% vegetated, and contains the Kalbarri National Park. The majority of the land west of the applied area is Crown Reserve vested with the Shire of Northampton for the purpose of recreation and parklands. East of the proposed clearing is unallocated Crown land. The vegetation under application is comprised of a vegetation complex that is well represented. 72.2% of vegetation remains in the Shire of Northampton, indicating it is well vegetated.

The proposed clearing involves removal of up to 4.2ha in a linear strip along a pre-existing road.

Given the pre-European extent remaining of the aforementioned vegetation association, and the relatively high proportion of vegetation remaining within the local area (10km radius), the clearing as proposed is not likely to be at variance to this principle.

Methodology References:
- Shepherd (2006)
- Department of Natural Resources and Environment (2002)

GIS Database:
- Beard Vegetation Complexes
- Local Government Authorities
- CALM Managed Lands
- NLWRA, Land Use
- NLWRA, Current Extent of Native Vegetation

(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**

The clearing application area is part of the coastline catchment and the Murchison River sub-catchment.

The area under application has 2 ANCA wetlands within the local area (10km radius). The vegetation community and soil type of these wetlands is the same as the proposed site. The proposed clearing falls outside the recommended buffer required for wetlands.

The applied area also occurs 0.16 kilometres from a major non-perennial lake and the Wittecarra Gully. Given that road widening activities will require removal of only narrow strips of vegetation away from the watercourse along a current road, the proposed clearing is not likely to have a significant impact on the ecological values of the watercourse.

Therefore this proposal is not likely to be at variance with this Principle.

Methodology GIS Database:
- ANCA Wetlands
- Ramsar Wetlands
- Hydrogeographic Catchments (Catchment)
- Hydrology, linear

(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 runs parallel to the coast (35m from high tide point at the closest point) and has a mean annual rainfall of 500 mm. Soils are largely undescribed but include loose siliceous sands, with some sandstone outcrops on hills, minor areas of red duplex soils, some neutral red earths and yellow sands. There is no data available for salinity risk; however, it is reasonable to assume that the ground and surface water in the local area is saline due to its close proximity to the ocean. Water logging or salinity may not occur due to the proposed clearing because the proposal is to clear a linear strip of vegetation parallel to the coast.

Therefore this proposal is not likely to be at variance to this Principle.

Methodology GIS Database:
- Hydrogeographic catchments (Catchment)
- Beard Vegetation Complexes
- Groundwater Salinity, statewide
- Rainfall, annual
- Evapotranspiration, Areal Actual
- Topography, statewide
- ANCA Wetlands
- RAMSAR Wetlands
- Salinity Risk, statewide
- Acid Sulfate Soil risk map
- Soils, Statewide

(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 area proposed to be cleared is 670m from the Kalbarri National Park (a Regional National Estate). The neighbouring land west of the applied area is Crown Reserve vested with the Shire of Northampton for the purpose of recreation and parklands. East of the proposed clearing is unallocated Crown land. The proposed clearing consists of a linear strip running parallel to these areas along the Red Bluff Road.

The proposed clearing occurs 300m from an ANCA wetland, which is also an Environmentally Sensitive Area (ESA).

Given that the surrounding reserves adjoin each other, the proposed area is not likely to provide significant linkage between them. Therefore, removal of a linear strip of vegetation is not likely to have an impact on these conservation areas, and this proposal is not likely to be at variance with this Principle.

Methodology GIS Database:
- CALM Managed Lands
- NLWRA, Land Use

(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

Considering the close proximity of the proposal area to the coast (35 m at the closest), clearing of vegetation is not likely to deteriorate the quality of the groundwater, which is expected to be already saline. Whilst salinity and acidity are not currently mapped for the proposed area, the proposed clearing is a linear strip within an otherwise well vegetated area and therefore unlikely to change the salinity and pH levels or cause harm to the groundwater-dependent ecosystems and their biological communities.

The site falls under the Rights in Water and Irrigation Act 1914 and lies in the Gascoyne groundwater area. The proposed area is not in a Public Drinking Water Source area.

Therefore, the clearing as proposed is not likely to be at variance to this principle.

Methodology GIS Database:
- Public Drinking Water Source Areas (PDWSAs)
- Hydrogeographic catchments (Catchment)
- Beard Vegetation Complexes
- Groundwater Salinity, statewide
- Acid Sulfate Soil risk map
- Rainfall, annual
- Evapotranspiration
- Topography, statewide
- ANCA Wetlands
- RAMSAR Wetlands
- Soils, Statewide

(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 consists of narrow, linear strips of vegetation. The mean annual rainfall in the region is 500 mm. Data are not available to estimate the depth to groundwater.

Due to the relatively low average annual rainfall in the region (500 mm) and the area of vegetation removal is narrow and small compared to the rest of the catchment which is well vegetated, the proposed clearing is unlikely to exacerbate flooding.

Methodology References:
- Shepherd (2006)
- Northcote et al. (2001)

GIS Database:
- Beard Vegetation Complexes
- Soils, Statewide

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

Comments

The site is not zoned but is a dedicated road. The neighbouring land to the west is zoned parks and recreation, and zonings to the east range from unallocated Crown Land, parks and recreation, rural and residential.

There is a Native Title claim over the area under application, however the clearing proposal falls within a road reserve which is being managed by the Shire of Northampton. The advertisement of the application in the West Australian newspaper by the Department of Environment and Conservation constitutes legal notification of the native title representative body for the purpose of the future act procedures under the Native Title Act 1993. No response was received from the representative body. The proposal area is 270m from an aboriginal site of significance; however as the clearing is taking place along existing road reserve it is unlikely to have an impact.

The area under application is covered by two Environmental Impact Assessments (CRN134145 and CRN119444). CRN134145 is the Shire of Northampton's Town Planning Scheme for Kalbarri Townsite (TPS 9). The clearing purpose is consistent with the types of land use designated for the area. The other EIA is the Geraldton Region Plan (CRN119444).

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Methodology

GIS Database:

- Town Planning Scheme Zones
- Native Title Claims
- Public Drinking Water Source
- Environmental Impact Assessments

4. Assessor's comments

Comment

The assessment against the clearing principles has found that the clearing as proposed is not at variance to Principle (d) and is not likely to be at variance with the remaining Principles.

5. References

- 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.
- 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., 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
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)

