



1. Application details

1.1. Permit application details

Permit application No.: 1054/1
 Permit type: Area Permit

1.2. Proponent details

Proponent's name: Shire of Kent

1.3. Property details

Property: NYABING TOWNSITE LOT 51 (House No. 2 HOBLEY NYABING 6341)
 Local Government Area: Shire Of Kent
 Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.4		Burning	Dam 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: Unit 1094 - Mosaic: Medium woodland; York gum & salmon gum / Shrublands; mallee scrub Eucalyptus eremophila & black marlock.	The south western part of the area proposed to be cleared is in excellent condition with a dense shrub layer and large variety of native species.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Kelghery 1994)	Vegetation condition established through site visit.
	The north eastern part of the area proposed to be cleared is considered to be in good condition with slightly less variety of native species and less dense shrub layer.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Kelghery 1994)	

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 at variance to this Principle**
 The vegetation of the area proposed to be cleared is considered to vary between Excellent and Good (Keighery 1994) condition with a very dense shrub and ground cover layer and a large variety of native species.

The area proposed to be cleared is within a remnant of approximately 140 hectares. The local area (10km radius) is approximately 95% cleared. The area proposed to be cleared and the entire remnant comprise of a high level of biological diversity and clearing within the remnant may degrade and compromise the biodiversity values within an already extensively cleared landscape.

Therefore the proposed clearing is at variance to this principle.

Methodology DEC site visit (2006)
 Local DAFWA advice (2006)
 Keighery (1994)
 GIS databases:
 - Katanning 1.4m Orthomosaic - DLI 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 at variance to this Principle
 The area proposed to be cleared is within 140ha of remnant bush. The condition of the vegetation is considered to vary between Excellent and Good (Keighery 1994) with a high level of species diversity.
 The area proposed to be cleared is within a remnant of approximately 140 hectares. The local area (10km radius) is approximately 95% cleared. The area proposed to be cleared and the entire remnant are therefore considered to be significant for the maintenance of fauna populations and habitat within an extensively cleared area.

Therefore the proposed clearing is at variance to this principle.

Methodology

DEC site visit (2006)
 Keighery (1994)
 GIS databases:
 -Katanning 1.4m Orthomosaic - DLI 01

(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
 There are no known Declared Rare Flora populations recorded within the local area (10km radius) of the proposed clearing.

There are six Priority Flora populations within the local area of the proposed clearing. The closest, *Verticordia brevifolia* subsp. *brevifolia*, is located 1.7km north of the area proposed to be cleared and is within the same Beard vegetation complex.

Therefore the proposed clearing maybe at variance to this principle.

Methodology

GIS databases:
 - Declared Rare and Priority Flora List - CALM 13/08/03
 - Katanning 1.4m Orthomosaic - DLI 01
 - Pre European Vegetation - DA 01/01

(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 known Threatened Ecological Communities or Threatened Plant Communities recorded within the local area (10km radius) of the proposed clearing.

The area proposed to be cleared is therefore not considered necessary for the maintenance of a threatened ecological community.

Methodology

GIS databases:
 - Threatened Ecological Communities - CALM 15/7/03
 - Threatened Plant Communities - DEP 06/95
 - Katanning 1.4m Orthomosaic - DLI 01

(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 seriously at variance to this Principle

The application is located in the Mallee Bioregion in the Shire of Kent. The extent of native vegetation in these areas is 19.5% and 26.8% respectively (Shepherd et al. 2001).

The vegetation of the area applied to clear is a component of Beard Unit 1094 (Hopkins et al. 2001) of which there is 4.7% (Shepherd et al. 2001) of the pre-European extent remaining, and therefore of 'endangered' status for biodiversity conservation (Department of Natural Resources and Environment 2002).

The area proposed to be cleared is within a remnant of approximately 140 hectares. The local area (10km radius) is approximately 95% cleared. There are only five remnants of similar size within the local area. The area proposed to be cleared and the entire remnant comprises a high level of biological diversity and are considered to be significant as a remnant within an extensively cleared area.

The proposed clearing is also within the agriculture zone of EPA position statement No. 2. The EPA do not support the further reduction in native vegetation through clearing for agriculture and support active management by

landholders to maintain environmental values of remaining vegetation.

Given the above the proposed clearing is seriously at variance to this principle.

Methodology DEC site visit (2006)
Local DAFWA advice
Department of Natural Resources and Environment (2002)
EPA (2000)
Hopkins et al. (2001)
Shepherd et al. (2001)
GIS databases:
- Interim Biogeographic Regionalisation of Australia - EM 18/10/00
- Local Government Authorities - DLI 8/07/04
- Pre European Vegetation - DA 01/01
- Katanning 1.4m Orthomosaic - DLI 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 is not at variance to this Principle

There are no EPP areas, EPP lakes, ANCA wetlands, RAMSAR wetlands or Geomorphic wetlands within the local area (10km radius) of the proposed clearing.

There are several drains and minor non-perennial watercourses within the local area of the proposed clearing. The closest is located 330m east of the proposed clearing.

The vegetation proposed to be cleared is not considered to be growing in or in association with a watercourse or wetland, due to the distance between the proposal and the nearest watercourse.

Methodology GIS databases:
- ANCA, Wetlands - CALM 08/01
- EPP Areas - DEP 06/95
- EPP Lakes - DEP 28/07/03
- Geomorphic
- Hydrography Linear - DoE 1/2/04
- RAMSAR, Wetlands - CALM 21/10/02
- Katanning 1.4m Orthomosaic - DLI 01

(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 proposed to be cleared has no known Acid Sulphate Soils risk, no known salinity risk and a ground water salinity of 14000-35000 mg/L.

Methodology GIS databases:
- Acid Sulfate Soil Risk Map, SCP - DoE 01/02/04
- Salinity Risk LM 25m - DOLA 00.
- Groundwater Salinity, Statewide - 22/02/00

(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

An un-named Nature Reserve is located 4.2km north of the area proposed to be cleared. There are no vegetation links between the area under application and the Nature Reserve.

The proposed clearing is unlikely to impact on the environmental values of nearby conservation reserves due to the distance and lack of vegetation links.

Methodology GIS database:
- CALM Managed Lands and Waters - CALM 1/06/04
- Register of National Estate - EA 28/01/03
- Katanning 1.4m Orthomosaic - DLI 01

Purpose	Method Applied	Area (ha)/ trees	Comment
Dam construction or maintenance	Burning	1.4	Assessment against the clearing principles has found principles (a) and (e) to be seriously at variance and (b) to be at variance, (c) to be maybe at variance, (g), (h), (i) and (j) to be not likely to be at variance and (d) and (f) not at variance.

Other matters considered included the Nyabing Water Management Plan.

4. Assessor's comments

Methodology

Given the above further information may be required to determine other dam site options that are not associated with the clearing of native vegetation and yield of new dam site.

GIS database:
 - Town Planning Scheme Zones - MFP 8/98
 Kellogg Brown & Root Pty Ltd (2005)

The Nyabing Water Management Plan prepared for the Department of Food and Agriculture identified a demand of 41ML/year for irrigation on parks and gardens and 27.4ML/year for urban water use, current town water resources include 25ML/year from Local Government infrastructure and 32ML/year from Scheme Water supply. This results in a deficit of 11.3ML/year. One of the options identified within the management plan includes the building of a new dam to increase water supply in the town. It should be noted however that the results of the modeling on a new dam where based on a parcel of land that is now not available to be used for construction of a new dam.

The proposed clearing is for the purpose of dam construction and the applicant has advised that the water will be used to irrigate nearby recreation facilities as well as other parks and gardens around the Nyabing town site.

The proposed clearing is associated with the Rural Towns - Liquid Asset (RT-LA) Project. Nyabing is one of sixteen towns participating in the RT-LA project, which is funded by the Western Australian State Government, 16 Local Government Authorities and the National Action Plan for Salinity and Water Quality (NAP). The aim of the project is to devise solutions to potential and existing townsite salinity problems as well as developing new locally based water resources (Kellogg Brown & Root Pty Ltd, 2005).

The Nyabing Water Management Plan prepared for the Department of Food and Agriculture identified a demand of 41ML/year for irrigation on parks and gardens and 27.4ML/year for urban water use, current town water resources include 25ML/year from Local Government infrastructure and 32ML/year from Scheme Water supply. This results in a deficit of 11.3ML/year. One of the options identified within the management plan includes the building of a new dam to increase water supply in the town. It should be noted however that the results of the modeling on a new dam where based on a parcel of land that is now not available to be used for construction of a new dam.

Manager of Rural Towns Program advised that the proposed dam location is determined by soil type and that "extensive drilling has shown that this is the only site on the property where there is sufficient depth of suitable holding material for the dam". Further information obtained on drilling sites indicates that the area of drilling investigation consisted of 16 soil samples within 200m of the proposed area to be cleared and no further investigation of soils where undertaken beyond this area.

Comments

The area is zoned park and recreation under the Town Planning Scheme.

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

GIS databases:
 - Topographic Contours, Statewide - DOLA 12/09/02

Comments

Proposal is not likely to be at variance to this Principle
 Due to the scale of the proposed clearing and the relatively flat layout of the land, flooding impacts are unlikely to occur.

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Methodology

GIS databases:
 - Hydrographic Catchments, Catchments - DoE 3/4/03
 - RIWI Act, Groundwater Areas - WRC 13/06/00
 - RIWI Act, Surface Water Areas - WRC 18/10/02

Comments

Proposal is not likely to be at variance to this Principle
 The area proposed to be cleared is within the Hardy Estuary-Cobline River Hydrographic Catchment Area and not within any RIWI ground water or surface water areas.

(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.

5. References

- DEC site visit report (2006) TRIM ref DOC6536.
- 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.
- 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.
- Kellogg Brown & Root Pty Ltd (2005), Nyabing Water Management Plan, Prepared for the Department of Agriculture. Local DAFWA advice on dam location, Department of Agriculture and Food Western Australia. DEC TRIM ref DOC5012.
- 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)

