Department of Environment
Government of Western Australia

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 1043/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Fire and Emergency Services Authority of WA

1.3. Property details

Property: LOT 10261 ON PLAN 215367

Local Government Area: Shire Of Kalamunda

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.26	25	Mechanical Removal	Building or Structure

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 1001; Medium very sparse woodland; jarrah, with low woodland; banksia & casuarina. (Shepherd et al 2001, Hopkins et al 2001).	The area under application (0.26ha) is adjacent to existing infrastructure with the proposed clearing allowing the extension of this infrastructure.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The condition of the vegetation within the subject area was assigned 'good' due to the number of weeds and the low diversity of understorey species within the area (site visit 28/3/06).
Heddle Vegetation complex; Southern River Vegetation Complex: Open woodland of Eucalyptus. calophylla - Eucalyptus. marginata - Banksia species with fringing woodland of Eucalyptus rudis - Melaleuca rhaphiophylla along creek beds. (Heddle et al. 1980)	The area under application is comprised of a number of Eucalyptus marginata and Allocasuarina fraseriana trees, particularly in the southern and central parts (Site Visit 28/3/06). Bennett Environmental Consulting (2006) describe the community as a Low Woodland of Eucalyptus marginata subsp. marginata and Allocasuarina fraseriana over an Open Low Heath of mixed species dominated by Allocasuarina humilis and Loxocarya flexuosa Three Declared Rare Flora species (Conospermum undulata) and one Priority 3 species (Isopogon drummondii) are located within the area. A number of weed species including Inkweed (Phytolacca octandra) and Perennial veldt grass (Erharta calycina) were also found throughout the area. Within the western part of the subject area, there are		

previously cleared areas (~0.03ha) and access tracks causing fragmentation of the vegetation (Site Visit 28/3/06).

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

Bush Forever site 319 occurs 4m north west of the area under application and is separated from the area proposed to be cleared by a 2m firebreak. The proposed clearing is outside the Bush Forever boundary. Vegetation within the subject area is known to include three Conospermum undulatum plants (declared rare flora species), and one Priority 3 species plant (Isopogon drummondii) (Bennett Environmental Consulting 2006). Subsequently, FESA have sought and received an approval from CALM to remove the three declared rare flora plants (TRIM ref: EI5423).

The vegetation within the area has been assigned a good condition due to a number of Open Low Heath mixed species (Bennett Environmental Consulting 2006). However, the vegetation in the area is fragmented by access tracks and a number of weeds are present throughout the area (Site Visit 28/3/06). As such, the clearing as proposed may be at variance to this Principle.

Methodology

Site Visit (28/3/06)
Bennett Environmental Consulting (2006) (TRIM ref: EI5422)
Conservation and Land Management (2006) (TRIM ref: EI5423)
GIS Databases:
- Bush Forever - MFP 07/01

(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 of the subject area is fragmented by access tracks, and surrounded by existing infrastructure (Site Visit 28/3/06). It is therefore unlikely that the vegetation is necessary for the maintenance of significant fauna habitat. The fragmentation and isolation of the vegetation within the area, renders it unlikely that the area would serve as an ecological linkage or a corridor between well vegetated areas.

Methodology

Site visit (28/3/06)
GIS Databases:
- Swan Coastal Plain North 40cm Orthomosaic - DLI 05

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments

Proposal is at variance to this Principle

Three plants of the declared rare flora species Conospermum undulatum and one plant of Priority Three species Isopogon drummondii are located within the area under application (Bennett Environmental Consulting 2006). The proponent has subsequently sought and received approval from the Minister for the Environment on 8 March 2006 to remove the Conospermum undulatum plants (TRIM ref: EI5423) with the proponent intending to relocate these specimens within the remaining vegetation on site (Environmental officer, FESA pers comm. 28/3/06). It is also believed that the removal of these 3 plants will have a minimal impact on the number of these species recorded elsewhere at the site (Bennett Environmental Consulting 2006).

Due to the presence of the DRF species, the clearing as proposed is at variance to this Principle. However, the proponent have received approval for their removal (TRIM ref EI5423).

Methodology

Bennett Environmental Consulting (2006) (TRIM ref: EI5422)
Conservation and Land Management (2006) (TRIM ref: EI5423)

(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

No Threatened Ecological Communities (TEC) have been identified within the area under application (Bennett Environmental Consulting 2006).

A number of TEC's occur in close proximity to the area under application. Four communities are found approximately 115m north north-west, 130m north north-east, 270 and 275m east north-east of the area under application. All TECs in close proximity to the subject area are found within Bush Forever areas set out for the

conservation of biodiversity.

Although these communities occur on the same Beard and Heddle Vegetation Complex as the site area, the presence of numerous weeds and vegetation fragmentation within the area under application indicates that the area is unlikely to be required for the maintenance of the adjacent TEC's

Methodology

Site Visit (28/3/06)
GIS Databases:
- Swan Coastal Plain North 40cm Orthomosaic - DLI 05
- Bush Forever - MFP 07/01
- Pre-European Vegetation - DA 01/01
- Heddle Vegetation Complexes - DEP 21/06/95
- Threatened Ecological Communities - CALM 15/7/03

(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 State Government is committed to the National Objectives and Targets for Biodiversity Conservation which outlines a target that prevents clearance of ecological communities with an extent 30% below that present Pre-European settlement (Department of Natural Resources and Environment 2001, EPA 2000). The vegetation in the area belongs to Beard Vegetation association 1001 of which there is 18,907 hectares (27.6%) remaining (Shepherd et al 2001, Hopkins et al 2001), and the Southern River Heddle Vegetation Complex of which there is 11,501 hectares (19.8%) of pre-European settlement vegetation remaining (Heddle et al. 1980).

The clearing of a small (0.26ha) fragmented area of vegetation that is adjacent to a large well maintained Bush Forever site is unlikely to be significant in a broad environmental context. In addition, greater than 90% of vegetation in the adjacent Bush Forever site has been classified as being in excellent or very good condition compared to the degraded-good condition of the area under application (Bennett Environmental Consulting 2006).

Methodology

Bennett Environmental Consulting (2006) (TRIM ref: EI5422)
Department of Natural Resources and Environment (2001)
EPA (2000)
Hopkins et al. (2001)
Shepherd et al. (2001)
Heddle et al. (1980)

(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

There are no watercourses present within the area under application (Site Visit 28/3/06). A Conservation Category Wetland is located approximately 20m north of the subject area and a multiple use wetland is located within the southern portion of the area under application. Vegetation in the area under application include a number of Eucalyptus marginata and Allocasuarina fraseriana trees, declared rare flora species 'Conospermum undulatum' and Priority 3 species 'Isopogon drummondii', amongst a number of weed species including Inkweed (Phytolacca octandra) and Perennial veldt grass (Erharta calycina). The Conservation Category Wetland is separated from the site area by a 2m firebreak. All of the species found within the area under application are not considered to be wetland dependent but Allocasuarina fraseriana can be found in association with a wetland.

The removal of a small amount of vegetation (0.26ha) from within a fragmented vegetative community, is unlikely to have any significant impacts on the nearby wetland.

Methodology

GIS Databases:
- Geomorphic Wetlands (Classification), Swan Coastal Plain - DOE 15/9/04
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DOE 15/9/04
- EPP Lakes - DEP 28/07/03

(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 clearing of a small area of vegetation (0.26ha) in a relatively flat landscape with a moderate to low risk of Acid Sulphate Soils is unlikely to cause appreciable land degradation within the local area.

Methodology

GIS Databases:
- Acid Sulphate Soil risk map, SCP DOE 01/02/04
- Topographic Contours, Statewide - DOLA 12/09/02

(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

A 2m firebreak separates Bush Forever site 319 and the area under application (Site Visit 28/3/06). The area under application lies within a System 6 Conservation Reserve. CALM (2006) and Bush Forever (2006) have both recommended that care be taken by contractors to ensure no other nearby remnant bushland be impacted or disturbed during the construction and development phases of the intended infrastructure.

The presence of a firebreak separating the Bush Forever site from the area proposed to be cleared will provide vehicular access to the area for clearing purposes, and would also help to prevent disturbance and trampling impacts within the boundary areas of the conservation area.

There is a Conservation Class 'C' Nature Reserve 210m to the south west of the area under application. However, the small scale clearing (0.26ha) as proposed is unlikely to impact on this conservation reserve.

Methodology

Site Visit (28/3/06)
Bennett Environmental Consulting (2006) (TRIM ref: EI5422)
Conservation and Land Management (2006) (TRIM ref: EI5423)
Bush Forever (2006) (TRIM ref: EI5283)
GIS Databases:
- Bushforever - MFP 07/01
- System 6 Conservation Reserves - DEP 06/95
- CALM Managed Lands and Waters - CALM 01/08/04

(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 area under application is not within a Public Drinking Water Source Area. There is a low salinity risk (500-1000 mg/l) in the subject area. There is a Conservation Category Wetland 20m north of the area under application, however, due to relatively flat nature of the surrounding landscape and the removal of a small amount of vegetation (0.26ha), the clearing as proposed is unlikely to have any indirect or direct impacts on the water quality within the surface water body.

Furthermore, the removal of a small amount of vegetation (0.26ha) in a fragmented and previously cleared area, in addition to the amount of vegetation that is to be retained locally, is unlikely to have any significant effect on the quality of surface or underground water.

Methodology

GIS Databases:
- Public Drinking Water Source Areas (PDWSAs) - DOE 29/11/04
- Groundwater Salinity, Statewide - 22/02/00

(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 landscape of the area is relatively flat in nature and there are no watercourses within the area under application. The removal of a small amount of vegetation (0.26ha) in a fragmented and previously cleared area in addition to the amount of vegetation that is to be retained locally, is unlikely to cause or exacerbate the incidence or intensity of flooding within the local area.

Methodology

GIS Databases:
- Geomorphic Wetlands (Classification), Swan Coastal Plain - DOE 15/9/04
- Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

There is no other RIWI Act licence, Works Approval or EP Act licence issues that will affect the area that has been applied to clear.

Methodology

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees		Decision	Comment / recommendation
Building or Structure	Mechanical Removal	0.26	25	Grant	The proposed clearing has been assessed against the clearing principles and may be at variance to Principle A and is at variance to Principle C due to the presence of DRF

species within the area under application. However, a permit to take DRF species has been granted by CALM. Given that the proponent has been given approval to clear these DRF species, the recommendation is to grant a permit to clear as applied.

The assessing officer advises that the proponent should ensure that all care is taken to ensure that the vegetation contained within the Bush Forever site 319 is not impacted upon during removal of native vegetation, or the construction of additional infrastructure.

5. References

Bennett Environmental Consulting (2006). Significant Flora - Fire and Emergency Services Authority Training Facility - Weslhpool. (TRIM ref: EI5422)

Bush Forever (2006). Bush Forever advice. (DoE TRIM ref: EI5283)

CALM (2006). Wildlife Conservation Act 1950 as amended - Section 23F - Permit To Take Declared Rare Flora. (DoE TRIM ref: EI5423)

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.

Heddle, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.

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.

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)