Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4562/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Nicholas John Vitalone and Michael Paul Dagostino

1.3. Property details

Property: LOT 11 ON DIAGRAM 49138 (Lot No. 11 RUNNYMEDE BINNINGUP 6233)
LOT 11 ON DIAGRAM 49138 (Lot No. 11 RUNNYMEDE BINNINGUP 6233)
Local Government Area: Shire of Harvey
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
20		Mechanical Removal	Grazing & Pasture

1.5. Decision on application

Decision on Permit Application: Refuse
Decision Date: 29 October 2012

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
Heddle Vegetation Complexes: 1) Bassendean Complex Central & South: Vegetation ranges from woodland of Eucalyptus marginata (Jarrah) - Allocasuarina fraseriana (Sheoak) - Banksia species to low woodland of Melaleuca species, and sedgelands on the moister sites. This area includes the transition of Eucalyptus marginata (Jarrah) to Eucalyptus todtiana (Pricklybark) in the vicinity of Perth (Heddle et al, 1980). 2) Karrakatta Complex - Central and South: Predominantly open forest of Eucalyptus gomphocephala (Tuart) - Eucalyptus marginata (Jarrah) - Corymbia calophylla (Marri) and woodland of Eucalyptus marginata (Jarrah) - Banksia species (Heddle et al, 1980). Beard Vegetation Associations: 1) 1000: Mosaic: Medium forest; jarrah-marri / Low woodland; banksia / Low forest; teatree (Melaleuca spp.) (Shepherd et al, 2001). 2) 6: Medium woodland; tuart & jarrah (Shepherd et al, 2001).	The vegetation under application consists of Eucalyptus marginata woodland over Banksia attenuata low open forest and Kunzea glabrescens shrubland. Understorey species comprise Hibbertia spp, Xanthorrhoea spp, Melaleuca thymoides and Bossiaea eriocarpa closed heath, over Lomandra micrantha and Dasypogon bromeliifolius herbs and Hypolaena exsulca and Lyginia barbata sedges. Some Agonis flexuosa trees were present in small stands (DEC, 2011).	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The description and condition of the vegetation was determined by a Department of Environment and Conservation site visit (DEC, 2011).

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

This application is to clear up to 20ha in two 10ha areas for the purpose of pasture and grazing within Lot 11 Runnymead Road, Binningup. This property is 320.14ha in size of which approximately 284.81ha (89.0%) consists of native vegetation in an excellent (Keighery, 1994) condition.

The vegetation under application consists of Eucalyptus marginata woodland over Banksia attenuata low open forest and Kunzea glabrescens shrubland. Understorey species comprise Hibbertia spp, Xanthorrhoea spp, Melaleuca thymoides and Bossiaea eriocarpa closed heath, over Lomandra micrantha and Dasypogon bromeliifolius herbs and Hypolaena exsulca and Lyginia barbata sedges. Some Agonis flexuosa trees are present in small stands (DEC, 2011).

Phytophthora (dieback) infestations occur within the area under application with some areas of individual Banksia deaths (DEC, 2011).

Overall the condition of the vegetation is excellent (Keighery, 1994).

The areas under application contain hollow-bearing trees and numerous proteaceous species (DEC, 2011) which act as foraging habitat for the State and Commonwealth protected Carnaby's cockatoos, Baudin's cockatoos and Forest Red-tailed black cockatoos that have been recorded in the local area. The area is also suitable habitat for Southern Brown Bandicoots (Quenda), Brush-tailed Phascogale, Western Quoll and Western Ringtail Possum that have been recorded in the local area (DEC, 2007-) and are protected under the Wildlife Conservation Act 1950.

The vegetation under application is part of a larger remnant that is one of the few large intact remnants in the local area in excellent (Keighery, 1994) condition (DEC, 2011). The property under application forms a linkage to the north through narrow areas of state forest and also creates a vegetated linkage from the outer urban areas of Bunbury to the outer urban areas of Mandurah (DEC, 2011). This linkage is recognised in the South Western Regional Ecological Linkages (SWREL) Technical Report (EPA, 2009). The proposed clearing will fragment these linkages and reduce the effectiveness of their ecological function.

Thirteen priority flora species occur within a 10km radius of the application area. A priority 4 species was observed during a Department of Environment and Conservation site visit in September 2011 and a priority 3 and 4 species are known to occur on the same soil and vegetation type and are likely to occur within the application area (DEC, 2011). Surveys conducted at an appropriate time of year would assist with identifying further priority flora species that are likely to occur within the application areas (DEC, 2011).

A rare flora species that only occurs in the southwest corner of Western Australia has been recorded in the local area (10kms). This species in known to occur on the same soil and vegetation type as the areas under application and is likely to occur within the application areas (DEC, 2011). A requirement to survey for rare flora prior to clearing, conducted at an appropriate time of year, would assist with identifying this rare flora species.

The property under assessment is within the Swan Coastal Plain Bioregion and contains approximately 284.81 hectares of native vegetation. This is a significant remnant as only 39% of native vegetation remains on the Swan Coastal Plain (Government of Western Australia, 2011). Under the Greater Bunbury Region Scheme, only 0.7% of vegetated remnants are in the size class between 100 ? 500 hectares and approximately 86% of the remaining remnants on the southern Swan Coastal Plain are less than five hectares in area (EPA 2003).

The EPA (2003) recognises that large remnants have long term viability in the long term to support the full range of species in a given community.

Given the excellent (Keighery, 1994) condition of vegetation within the applied area, the presence of suitable habitat for a number of conservation significant fauna and flora species, and the importance of this area as an ecological linkage, it is likely that the vegetation under application has a high level of biodiversity in a local context.

Therefore the clearing as proposed is at variance to this principle.

Methodology

References:
DEC (2007-)
DEC (2011)
EPA (2003)
EPA (2009)
Government of Western Australia (2011)
Keighery (1994)

GIS Databases:
-SAC Biodatasets (Accessed 29 August 2011)
-Greater Bunbury Regional Area
-IBRA Australia

(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 vegetation under application is excellent (Keighery, 1994) condition Jarrah woodland and Banksia low open

forest which is likely to comprise part of significant habitat for many local fauna species including the common Brushtail Possum. Brushtail Possum scats were observed during the DEC site inspection (DEC, 2011).

A total of nineteen conservation significant species have been recorded in the local area (10km radius) thirteen of which are listed as Rare or Likely to become Extinct under the Wildlife Conservation Act 1950 (DEC, 2007-).

These include three species of threatened black cockatoos which are also protected under the Commonwealth's Environment Protection Biodiversity Conservation Act 1999;
- Calyptorhynchus banksii subsp. naso (Forest Red-tailed black cockatoo)
- Calyptorhynchus baudinii (Baudin's cockatoo)
- Calyptorhynchus latirostris (Carnaby's cockatoo)

In addition Phascogale tapoatafa subsp. ssp. (Brush-tailed Phascogale), Dasyurus geoffroii (Western Quoll/ Chuditch) and Pseudocheirus occidentalis (Western Ringtail Possum) have been recorded in the local area (DEC, 2007-). All of these rare fauna species listed above rely on marri-jarrah woodland, banskia woodland and/or peppermint woodland as significant habitat in the form of feeding grounds, nesting hollows and refuge. The areas under application consist of these three woodland habitats in excellent (Keighery, 1994) condition and hence provide significant habitat for these rare fauna species.

Trees with hollows and hollow-forming potential were observed during the DEC site inspection along with an abundance of Proteaceae species thus confirming the availability of both nesting and foraging habitat for black cockatoos within the application areas (DEC, 2011). In addition, there is a known Carnaby's cockatoo roost site recorded approximately 12kms north of the application areas in the same vegetation type as the areas under application (Medium woodland of tuart & jarrah). Carnaby's cockatoos forage up to 13kms from roost sites (Shah, 2006). Therefore the areas under application comprise significant habitat value for black cockatoos.

Given the vegetation under application is in excellent (Keighery, 1994) condition and provides significant habitat for a number of fauna species for conservation significance, including nesting and foraging habitat for the three species of black cockatoos protected under the Commonwealth's Environment Protection Biodiversity Conservation Act 1999, the clearing as proposed is at variance to this principle.

Methodology

References:
DEC (2007-)
DEC (2011)
Keighery (1994)
Shah (2006)

GIS Databases:
- SAC Biodatasets (Accessed 3 October 2011)

(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

Five species of rare flora have been mapped in the local area (10kms). It is likely that one species occurs within the proposed clearing areas as the vegetation between the specimen and proposed clearing is contiguous and of the same type.

The other four rare flora species are wetland species and a DEC site visit confirmed that wetland habitat does not occur within the application areas (DEC, 2011).

An appropriately timed targeted flora survey would identify occurrences and possible impacts to rare flora species.

The clearing as proposed may be at variance to this principle.

Methodology

References:
DEC (2011)

GIS Databases:
- SAC Biodatasets (Accessed 29 August 2011)

(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

The closest recorded threatened ecological community (TEC) is located approximately 3.75km from the area under application.

This TEC is a wetland community and is not associated with the same vegetation type as the area under application and hence unlikely to occur within the area under application (DEC, 2011).

Therefore the clearing is unlikely to be at variance to this principle.

Methodology References:
DEC (2011)

GIS Databases:
- SAC Biodatasets (Accessed 29 August 2011)

(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 property under application forms the northern extent of a number of privately owned bush blocks that together link the DEC managed 5 hectares of Kemerton bushland to the Guthrie State Forest Block (DEC, 2011). On a larger scale, the property under application creates a vegetated linkage from the outer urban areas of Bunbury to the outer urban areas of Mandurah. The significance of this linkage has been recognised by the South West Regional Ecological Linkage Technical Report which is endorsed by the Environmental Protection Authority (Molloy et al., 2009).

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

Less than 30 per cent of both the mapped Beard and Heddle vegetation types remain within the Swan Coastal Plain bioregion (see table below).

The property under assessment is within the Swan Coastal Plain Bioregion and contains approximately 284.81 hectares (89%) of native vegetation. This is a significant remnant as only 39% of native vegetation remains on the Swan Coastal Plain (Government of Western Australia, 2011). Under the Greater Bunbury Region Scheme, only 0.7% of vegetated remnants are in the size class between 100 - 500 hectares and approximately 86% of the remaining remnants on the southern Swan Coastal Plain are less than 5 hectares in area (EPA 2003).

Within the local area (10km radius) approximately 50% vegetation remains. Given the fauna habitat, linkage and biodiversity values of the vegetation under application it is considered a significant remnant in an extensively cleared area.

Therefore, the assessment has determined this clearing principle is at variance.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Swan Coastal Plain	1,501,209	587,889	39.2	33
Shire*				
Shire of Harvey	170,787	90,549	53.0	73
Beard Vegetation Associations in Bioregion*				
Bassendean 1000	94,175	25,621	27.2	16
Spearwood 6	56,343	14,579	25.9	34
Heddle Vegetation Complexes **				
Bassendean Complex-Central and South	87,318	24,610	28	3
Karrakatta Complex-Central and South	49,735	12,789	25	5

* Government of Western Australia (2011)
** Heddle et al (1980)

Methodology References:
Commonwealth of Australia (2001)
DEC (2011)
EPA (2003)

Government of Western Australia (2011)
Heddle et al (1980)
Molloy et al. (2009)

GIS Databases:
-Bunbury 50cm Orthomosaic- Landgate 2008
-Interim Biogeographic Regionalisation for Australia (IBRA), Version 6.1
-NWLRA, 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

There is a conservation class wetland mapped 0.8km to the east of the eastern application area and another conservation class wetland is located 1.3km southeast of the eastern area of vegetation under application.

The Harvey Diversion Drain is located 2.3km north of the application areas.

The nearest watercourse is the Wellesley River is situated 4.6km south.

A site visit by Department of Environment and Conservation staff confirmed there is no wetland vegetation present within the application areas (DEC, 2011).

Given the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology

References:
DEC (2011)

GIS Databases:
-Geomorphic wetlands (mgt categories), Swan Coastal Plain
-Hydrography, linear
-Rivers

(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 20ha under application can be generally described as subdued dune-swale terrain with chief soils being leached sands (Northcote et al., 1960- 68).

The application in its current form is unlikely to cause appreciable land degradation.

The Commissioner of Soil and Land Conservation (2011) advised that land degradation in the form of water and wind erosion, eutrophication, waterlogging, eutrophication and salinity is low. The risk of wind erosion may be reduced with good management practices and permanent groundcovers. In addition the surrounding uncleared vegetation will act as a buffer to minimise the wind erosion (Commissioner of Soil and Land Conservation, 2011).

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

Methodology

References:
Commissioner of Soil and Land Conservation (2011)
Northcote et al. (1960- 68)

(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 at variance to this Principle

The areas under application are part of a larger remnant (320.14ha) that is surrounded by multiple conservation areas to the north, south, east and west.

Myalup State Forest is located approximately 120 metres north, Lot 100 reserve (CALM freehold) is located approximately 2.5km east, Byrd Swamp Nature reserve is located approximately 3.5km east, Yalgorup National Park is located approximately 3.3km west and Kemerton Bushland is located approximately 5kms south of the areas under application.

This larger remnant of vegetation forms the northern extent of a number of privately owned bush lots that are linked by continuous vegetation to DEC managed lands to the north and south. The clearing of 20ha would

further fragment this north-south linkage that supports biodiversity values of the local area.

Given the above, the proposed clearing is at variance to this Principle.

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Methodology GIS Databases:
-Bunbury 50cm Orthomosaic- Landgate 2008
-DEC Tenure

(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 areas under application fall within a proclaimed South West Coastal Groundwater Area under the Rights in Water and Irrigation Act 1914.

The areas under application are within the Harvey River catchment and the nearest watercourse is the Wellesley River, situated 4.6km south.

Given the distance to the nearest watercourse the proposed clearing is unlikely to significantly degrade surface or ground water quality within the area.

Given the above the proposal is not likely to be at variance to this principle.

Methodology GIS Databases:
-Hydrography, linear
- RIWI Act, Groundwater Areas
- Rivers
- Hydrographic catchments

(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 areas proposed to be cleared occur on leached sandy soils and low relief topography.

The proposed clearing is unlikely to increase the risk of flooding or cause any significant change (Commissioner of Soil and Land Conservation, 2011).

Therefore the proposed clearing is not likely to be at variance to this Principle.

Methodology References:
Commissioner of Soil and Land Conservation (2011)

GIS Databases:
-Bunbury 50cm Orthomosaic- Landgate 2008
-Topographic contours, statewide
-Soils, statewide

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

Comments

No public submissions have been received.

The areas under application are zoned Rural under both the Town Planning Scheme and the Greater Bunbury Regional Scheme.

Lot 11 is zoned 'General Farming' by the Shire of Harvey District Planning Scheme No.1 (Shire of Harvey, 2011).

The Shire of Harvey (2011) advise the proposed clearing of remnant vegetation for grazing purposes is not supported by the Scheme. Specifically, one of the objectives of the Scheme is:
"to protect and preserve the more important natural flora and fauna habitats (ecosystem, biodiversity and essential ecological processes), and other environmentally sensitive areas that are prone to degradation on the principle that the extent and manner of use of these areas should be kept within their capabilities of being sustained without degradation in the long term."

The areas under application fall within a proclaimed South West Coastal Groundwater Area under the Rights in Water and Irrigation Act 1914. The Department of Water (DoW) assessed the application and advised they

have no comments on the proposed clearing (DoW, 2011).

During the DEC site inspection the applicant advised;

* this clearing application is to be the start of a planned larger clearing process with the intention for the two areas under application to be used as a point to provide feed for cattle and perhaps a shed or house in the future
* the intent to install at least three fence lines running in a north-south direction, parallel to the existing central track on the property
* the intent to introduce cattle into the remaining vegetation on the property to graze the entire property.

The intensive grazing of native vegetation is defined as clearing in accordance with the Environmental Protection Act 1986.

A letter was sent to the applicant on 18 October 2011 outlining the environmental impacts that were identified. In a fax dated 30 April 2012 the applicant requested map overlays and disputed a number of point in the above assessment. The application was not modified and the applicant did not address any of the environmental concerns. In response to this fax DEC, in a letter dated 25 June, advised the applicant to seek assistance from an environmental consultant. DEC sent a follow up email to the applicant on 13 August 2012 and further letter dated 13 September 2012. No information on how the environmental issues will be addressed has been received.

Methodology

References:
DEC (2011)
DoW (2011)
Shire of Harvey (2011)

GIS Databases:
--Town Planning Scheme Zones
-Greater Bunbury Regional Area

4. References

Commissioner of Soil and Land Conservation (2011) Land Degradation Advice and Assessment Report for clearing permit application CPS 4562/1 received 28/09/2011, Department of Agriculture and Food Western Australia (DEC REF A435209).

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

DEC (2011) Site Inspection Report for Clearing Permit Application CPS 4562/1 Lot 11 Runnymede Rd, Binningup. Site inspection undertaken 15/09/2011, Department of Environment and Conservation, Western Australia (DEC REF A433572).

DoW (2011); Advice for clearing permit application CPS 4562/1 received 26/09/2011, Department of Water, Western Australia (DEC REF A435107).

EPA (2003) Greater Bunbury Region Scheme. Bulletin 1108. Environmental Protection Authority, Western Australia.

Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.

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.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Molly, S., Wood, J., Hall, S., Wallrodt, S. and Whisson G. (2009) South Western Regional Ecological Linkages Technical Report, Western Australian Local Government Association and Department of Environment and Conservation, Perth.

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. Technical Report 249. Department of Agriculture Western Australia, South Perth.

Shire of Harvey (2011) Response to Direct Interest Letter for clearing permit application CPS 4562/1, received 6 October 2011, Shire of Harvey, Harvey WA (DEC REF A438097).

5. 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)