Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4035/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Jason Matthew Pomery

1.3. Property details

Property: LOT 2463 ON PLAN 135421 (House No. 1661 REDMOND-HAY RIVER REDMOND 6327)
Local Government Area:
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Refused
Decision Date: 21 March 2011

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 2051 - Sedgeland; sedges with low tree savanna woodland; paperbarks over & various sedges	The proposed clearing of 5.9 ha is for the purpose of grazing and pasture.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The condition of the application area was established through a site inspection carried out by DEC officer November 2010 (DEC 2010).
Mattiske Vegetation Complex: Bu (Burnett) - Mosaic of tall shrubland of Agonis linearifolia - Agonis parviceps, open heaths of Myrtaceae- Proteaceae - Papilionaceae spp. With some Eucalyptus patens and Eucalyptus megacarpa and sedgeland of Anarthria - Lepidosperma spp. On broad flats in the hyperhumid zone	The vegetation under application consists predominantly of Evandra aristata sedgeland with areas of Melaleuca preissiana low woodland and Homalospermum firmum, Callistemon glaucus peat thicket and occurs in excellent condition.		

(Shepherd et al. 2007, Mattiske et al 1998)

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 under application consists predominantly of Evandra aristata sedgeland with areas of Melaleuca preissiana low woodland and Homalospermum firmum, Callistemon glaucus peat thicket and occurs in excellent (Keighery 1994) condition (DEC 2010).

The area under application is part of the Albany Regional Vegetation Survey (ARVS) (Sandiford & Barrett, 2010). Three vegetation units have been mapped within the area under application as part of this survey including 46 - Evandra aristata sedgeland, 49 -Melaleuca preissiana low woodland and 47 - Homalospermum firmum, Callistemon glaucus peat thicket. All three of these units are thought to have less that 30% of their pre-European extent remaining within the ARVS area (Sandiford & Barrett, 2010). The ARVS states that the dominant vegetation type, Evandra aristata sedgeland, is floristically diverse (Sandiford & Barrett, 2010).

Given this and the excellent (Keighery 1994) condition of the vegetation under application, it is considered that the proposed clearing is at variance to this Principle.

Methodology References
-DEC (2010)

-Keighery (1994)
-Sandiford & Barrett (2010)
GIS Databases
-SAC Bio datasets (26 November 2010)

(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 may be at variance to this Principle

Three conservation significant fauna species have been recorded within the local area (10 km radius) including Water-rat (Hydromys chrysogaster) (Priority 4 under theWestern Australian Wildlife Conservation Act), Western Mud Minnow (Galaxiella munda) (Vulnerable under the Environment Protection and Biodiversity Conservation Act) and the Forest Red-tailed Black Cockatoo (Calytorhynchus banksii naso) (Vulnerable under the Environment Protection and Biodiversity Conservation Act).

It is considered unlikely for the Forrest Red-tailed Black Cockatoo to utilize the application area due to lake of feeding and nesting habitat and that more suitable habitat (marri jarrah woodland) is adjacent to the application area. In addition, it is not likely for the Western Mud Minnow or the Water-rat to utilize the application area due to the lack of standing water.

The application area does not occur within an extensively cleared landscape as ~ 32% of pre-European vegetation extent remains in the local area (10km radius) and 37.41% remains in the City of Albany. However, the application area is a part of a north south ecological linkage between Denmark Catchment State Forest and Sleeman Creek Nature Reserve. The proposed clearing may reduce the effectiveness of this linkage and limit dispersal of fauna between these conservation areas.

Given the excellent (Keighery 1994) condition of the application area and that it is a part of a significant linkage for fauna dispersal between conservation areas, the proposed clearing may be at variance to this Principle.

Methodology

References
-DEC (2010)
-Keighery (1994)
GIS Databases
-SAC bio Datasets (26 November 2010)
-DEC Tenure
- Mount Barker 50cm Orthomosaic - Landgate 2007

(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

Four rare flora species have been recorded within a 10km radius of the application area including Lambertia orbifolia subsp. orbifolia, Banksia goodii, Microtis globula and Conostylis misera.

The vegetation under application consists of wetland vegetation consisting of Evandra aristata sedgeland and occurs in a predominately excellent (Keighery 1994) condition (DEC 2010).

Banksia goodii and Lambertia orbifolia subsp. orbifolia area not know to occur in wetland vegetation types (Brown et al 1998, WA Herbarium 1998-). Given that the application area contains a wetland community (DEC 2010) it is not considered for this species to occur within the application area.

Both Microtis globula and Conostylis misera are known to occur in winter wet areas (Brown et al 1998) However, a site visit of the application area did not identify any rare flora species and it is not considered likely for Conostylis misera or Microtis globula to occur within the application area (DEC 2010).

Given this the application is not at variance to this Principle.

Methodology

References
-DEC (2010)
-Brown et al (1998)
-WA Herbarium (1998-)
GIS Databases
-SAC Bio Datasets (26 November 2010)

(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 Threatened Ecological Community (TEC) is Mt Lindsey - Little Lindsey Vegetation Complex

occurring 27.9 km west of the application area.

Given the distance to the nearest TEC it is not considered for the proposed clearing to be at variance to this Principle.

Methodology GIS Databases
-SAC Bio datasets (26 November 2010)

(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 under application is described as Beard vegetation association 2051 and Mattiske Vegetation Complex Bu, which there is 71.73% and 100% of pre-European extent remaining, respectively (Mattiske et al 1998, Shepherd 2009).

The three vegetation units that have been mapped within the area under application as part of the ARVS including 46 - Evandra aristata sedgeland, 49 -Melaleuca preissiana low woodland and 47 - Homalospermum firmum, Callistemon glaucus peat thicket, are thought to have less that 30% of their pre-European extent remaining within the ARVS area (Sandiford & Barrett, 2010).

However, the Beard and Mattiske vegetation association/complex retains more than the threshold level (30%) recommended in the National Objectives Targets for Biodiversity Conservation, below which species loss appears to accelerate exponentially at an ecosystem level (Commonweath of Western Australia 2001).

In addition, the application area does not occur within an extensively cleared landscape as ~ 32% of pre-European vegetation extent remains in the local area (10km radius) and 37.41% remains in the City of Albany. Therefore the proposal is not at variance to this principle.

	Pre-European (ha)	Current extent (ha)	Remaining %
IBRA Bioregion Jarrah Forrest*	4506656.9	2514549.9	55.8*
Shire of Albany*	431374.7	161374.6	37.4*
Local Area (~10km radius)	31400	~9117.6	~32.0
Beard type in Bioregion* 2051	10742.8	7706.0	71.7
Mattiske Complex** Bu (Burnett)	7028.7	7028.7	100.0

(Shepherd 2009)*
(Mattiske et al 1998)**

Methodology References
-Shepherd (2009)
-Mattiske et al (1998)
-Commonwealth of Australia (2001)
Sandiford & Barrett (2010)
GIS Databases
-Pre-European Vegetation
-Mattiske Vegetation Complex
- Mount Barker 50cm Orthomosaic - Landgate 2007
-NLWRA, Current Extent of Native Vegetation
-Interim Biogeographic Regionalisation of Australia

(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 at variance to this Principle**

The area under application occurs within a wetland. A minor perennial watercourse occurs ~ 10 to 52 m northwest of the application area and is a tributary of Blue Gum Creek. Blue Gum Creek is a major river occurring ~ 380m north of the area under application.

The vegetation under application contains wetland dependent vegetation consisting of Evandra aristata sedgeland in a predominately excellent (Keighery 1994) condition (DEC 2010) and is connected by continuous vegetation to the adjacent watercourse.

The vegetation condition and linkage and habitat values of the area under application appear to hold similar values of that of a conservation category wetland occuring on the Swan Coastal Plain. Conservation category wetlands support a high level of ecological attributes and functions and are the highest priority for protection (Waters and Rivers Commission 2001).

The proposed clearing will directly impact vegetation growing in association with a wetland by clearing resulting in alteration of the hydrological regime and removing habitat for flora and fauna.

In addition, the proposed clearing will impact the adjacent watercourse by reducing its buffer. A buffer protects wetlands and watercourse from potential diverse impacts and maintains ecological process and functions (Waters and Rivers Commission 2001). Therefore, the proposed clearing is considered at variance to this Principle.

Methodology

References
-DEC (2010)
-Keighery (1994)
-Waters and Rivers Commission (2001)
GIS Databases
-Hyrdography linear
-Hydrology, linear (hierarchy)

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments

Proposal is at variance to this Principle

The chief soils under application are sandy neutral yellow mottled soils and leached sands (Northcote et al 1960-68).

Given the sandy soils present and the large area proposed to be cleared, appreciable land degradation through wind erosion may occur. In addition, the area under application has a high risk of waterlogging due to it being a wetland (Commissioner of Soil and Land Conservation 2011).

Therefore the area under application is at variance to this principle.

Methodology

References
- Northcote et al (1960-68)
-Commissioner of Soil and Land Conservation (2011)
GIS Databases
-Hydrography linear
-Mount Barker 50cm Orthomosaic - Landgate 2007
-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 may be at variance to this Principle

The closest conservation area is Denmark Catchment State Forest occurring 2.1km southwest and Sleeman Creek Nature Reserve occurring 1.4km northeast of the application area.

The application area is a part of a north south ecological linkage between these two conservation areas. The proposed clearing may reduce the effectiveness of this linkage and limited dispersal of fauna between Denmark Catchment State Forest and Sleeman Creek Nature Reserve. Therefore the proposed clearing may be at variance to this Principle

Methodology

GIS Databses
-DEC Tenure
-Mount Barker 50cm Orthomosaic - Landgate 2007

(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 at variance to this Principle

The area under application occurs within a wetland. A minor perennial watercourse occurs ~ 10 to 52 m northwest of the application area and is a tributary of Blue Gum Creek. Blue Gum Creek is a major river occurring ~ 380m north of the area under application.

The vegetation under application contains wetland dependent vegetation consisting of Evandra aristata sedgeland in a predominately excellent (Keighery 1994) condition (DEC 2010) and is connected by continuous vegetation to the adjacent watercourse.

The proposed clearing will disrupt the natural hydrology of the wetland under application by increasing water discharge and may impact on the adjacent watercourse by disrupting hydrology and increasing nutrient runoff causing deterioration in surface water quality (Commissioner of Soil and Land Conservation 2011).

Therefore it is considered for the proposed clearing to be at variance to this Principle.

Methodology References
-DEC (2010)
-Commissioner of Soil adn Land Conservation (2001)
-Keighery (1994)
GIS Databases
- Hyrdography linear
- Hydrology, linear (hierarchy)

(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 may be at variance to this Principle

The area under application occurs within a wetland. A minor perennial watercourse occurs ~ 10 to 52 m northwest of the application area and is a tributary of Blue Gum Creek. Blue Gum Creek is a major river occurring ~ 380m north of the area under application.

The vegetation under application contains wetland dependent vegetation consisting of Evandra aristata sedgeland in a predominately excellent (Keighery 1994) condition (DEC 2010) and is connected by continuous vegetation to the adjacent watercourse.

The proposed clearing will disrupt the natural hydrology of the wetland under application by increasing water discharge which may cause or exacerbate the incidence or intensity of flooding. Therefore the proposed clearing maybe at variance to this Principle.

Methodology References
-DEC (2010)
-Keighery (1994)
GIS Databases
-Hyrdography linear
-Hydrology, linear (hierarchy)

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

Comments

The proposed clearing of 5.9 ha is for the purpose of grazing and pasture. The applicant in response to DEC's letter sent 18th of February 2011 has decreased the applcaition area to 5.9ha and has shifted it to the west with the aim of exculding wetland area. However the majority of the applciation area is still within the wetland or its 50m buffer.

The area under application is zoned Rural under the City of Albany's Town Planning Scheme.

No other approvals are required.

Methodology GIS Databases
-Town Planning Scheme Zones

4. References

Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.

Commissioner of Soil and Land Conservation (2011) Advice on Land Degradation Risk for CPS 4035/1 - Jason Pomery - Lot 102 on Deposited Plan 67394 Redmond. DEC ref A369076

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

DEC (2010) Site Inspection Report for Clearing Permit Application CPS 4035/1 Lot 102 on Plan 67394, Redmond. Site inspection undertaken 3/12/2010. Department of Environment and Conservation, Western Australia (DEC ref A354555)

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

Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment 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.

Sandiford and Barrett (2010) Albany Regional Vegetation Survey, Extent, Type and Status. A project funded by the Western Australian Planning Commission (EnviroPlanning -Integrating NRM into Land Use Planning- and State NRM Program), South Coast Natural Resource Management Inc. and City of Albany for the Department of Environment and Conservation. Unpublished report. Department of Environment and Conservation, Western Australia.

Shepherd, D.P. (2009) 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.

Water and Rivers Commission (2001) Position Statement: Wetlands, Water and Rivers Commission, Perth.

Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. http://florabase.dec.wa.gov.au/ (Accessed 10/12/2010).

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)