Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2674/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Grahame Niven Silver Vintage Pty Ltd

1.3. Property details

Property: LOT 487 ON PLAN 202744 (House No. 40 DOGHILL ROAD, BALDIVIS 6171)

Local Government Area: City Of Rockingham

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
3.5		Mechanical Removal	Horticulture

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
1001 - Medium very sparse woodland; jarrah, with low woodland; banksia & casuarina Heddle Vegetation Complexes: Dardanup Complex: Mosaic of vegetation types characteristic of adjacent vegetation complexes such as Serpentine River, Southern River and Guildford.	The proposal includes clearing of 3 hectares of native vegetation for horticultural purposes. The area under application has previously been cleared for the same purpose. The vegetation under application is dense Kunzea glabrescens woodland, with an occasional Allocasuarina fraseriana and one Eucalyptus marginata. The understorey consists of introduced grasses and weed species including Arum Lily Zantedeschia aethiopica.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The description and condition of the vegetation under application was obtained during a site visit on Tuesday 4th April 2006.

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 area under application has been previously disturbed and the vegetation under application primarily comprises Kunzea glabrescens over introduced grasses and other weed species, and is considered to be in a degraded condition (DEC, 2006). Given the limited species diversity and degraded condition the area under application is not considered likely to comprise a high level of biodiversity.

Methodology DEC (2006)

(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 under application contains primarily Kunzea glabrescens, with limited individuals of Allocasuarina fraseriana and Eucalyptus marginata that would not provide significant habitat for fauna. The grassy understorey and woody debris present could provide some habitat for ground dwelling fauna such as

Quenda, however would not be considered significant habitat when compared to the nearby Bush Forever sites and Leda Nature Reserve.

Methodology GIS Databases:
-Bush Forever - MFP 07/01
-CALM Managed Lands and Waters - CALM 1/07/05

(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**
There is one known population of rare flora within the local area (5km radius). The rare flora, Drakaea elastica is located approximately 5km to the south. The rare flora is found within a different soil type and vegetation complex and therefore it is not considered likely to occur within the area under application.

Methodology DEC (2006)
GIS Databases:
-Declared Rare and Priority Flora List - CALM 01/07/05
-Soils, Statewide - DA 11/99

(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**
There are three known occurrences of Threatened Ecological Communities (TEC) within the local area (5km radius). These TEC are located 3.5km to the northeast and are identified as Floristic Community Type 3c (Eucalyptus calophylla - Xanthorrhoea preissii woodlands and shrublands).

Given that the vegetation under application comprises mainly Kunzea glabrescens in a degraded condition, and given the distance to the nearest TEC, it is not considered likely to comprise, or be necessary for the maintenance of, a TEC.

Methodology DEC (2006)
GIS Database:
-SAC Bio datasets 13/10/08

(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 defined as Beard vegetation association 1001 (Shepherd et al. 2001), which has a pre-European settlement representation of 27.6%. The vegetation under application is also defined as Dardanup Complex (Heddle et al. 1980) of which there is 7.9% of pre-European extent remaining.

While the vegetation representation within the Dardanup complex is below the minimum 10% of pre-European extent, the vegetation on site consists primarily of Kunzea glabrescens in a degraded condition and is not considered to be representative of this community and therefore is not likely to be at variance with this principle.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	In secure tenure (%)
IBRA Bioregion*				
Swan Coastal Plain^	1,501,209	583,141	38.8	32.5
Beard vegetation type*				
1001	57,410	14,546	25.3	5.1
Heddle vegetation complex**				
Dardanup Complex	9,504	754	7.9	0.0

* (Shepherd, 2007)
** (EPA, 2006)
^ Area within Intensive Land Use Zone

Methodology Shepherd et al. (2001)
Shepherd (2007)
EPA (2006)

(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

A number of Conservation Category Wetlands (CCW) are located within the local area of the application, the closest being approximately 3.3km to the northeast. In addition the area under application is located immediately adjacent to a large multiple use wetland.

The nearest watercourses are the Serpentine River, which is located 3.6km to the southeast, and the Peel Main Drain, which is located 1.8km to the west.

Given the area under application is not located within a wetland or watercourse and no wetland dependant vegetation was observed (DEC, 2006) it is considered that the vegetation under application in not likely to be growing in, or in association with a wetland or watercourse.

Methodology

GIS Databases:
-Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DOE 15/9/04
-Hydrography, linear (hierarchy) - DOE 13/4/05

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

Comments

Proposal may be at variance to this Principle

The Department of Agriculture (2005) advised that the majority of the area under application consists of extremely low to very low relief dunes, undulating sand plain and discrete rises. The remainder of the property comprises dune ridges and undulating sand plains. These soil types have a high risk of wind erosion and eutrophication.

The Department of Agriculture (2005) advised that the proposed clearing is likely to be at variance with this principle due to the associated land degradation risks, however these risks could be minimised by the adoption of adequate management strategies. These management strategies include maintaining adequate wind breaks and groundcover to reduce wind erosion, and management of fertiliser application to reduce eutrophication risks. Furthermore the glass houses proposed for the site would further minimise the risk of wind erosion.

Methodology

Department of Agriculture (2005)
GIS Database:
-Salinity Risk LM 25m - DOLA 00
-Soils, Statewide - DA 11/99

(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 number of Bush Forever sites are located within the local area (5km radius) of the application, the closest of which is located 1.6km to the south. Leda Nature Reserve is also located 4km to the northwest of the area under application. The land between the area under application and the conservation reserves is used for agricultural and residential purposes.

Given the surrounding land uses, and that the area under application comprises vegetation in a degraded condition, the clearing as proposed is not considered likely to impact the environmental values of any nearby conservation area.

Methodology

DEC (2006)
Heddle et al 1980
Shepherd et al. 2001
GIS Databases:
-Bush Forever - MFP 07/01
-CALM Managed Lands and Waters - CALM 1/07/05

(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 may be at variance to this Principle

The Department of Agriculture (2005) advised that the area under application has a very high risk of eutrophication due to the sandy soils. Bleached sands have poor phosphorus holding potential, however deep-rooted perennials can reduce transportation of nutrient in groundwater to waterbodies through nutrient uptake. Removal of deep-rooted perennials from the area under application may result in an increase phosphorus export from the soil and into the groundwater.

Drainage from the property is north to north-westerly and nutrients may discharge into the nearby wetlands and into the Peel Main Drain, which drains into the Peel Harvey Estuary. Nutrients lost through the soil profile within the area under application is likely to contribute to eutrophication of the groundwater which would be transported to the Peel Harvey Estuary.

Given the potential for increase in nutrient and deterioration in the quality of ground and surface water through eutrophication the clearing as proposed may be at variance with this principle.

Methodology Department of Agriculture (2005)
GIS Databases:
-Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DOE 15/9/04
-Hydrography, linear (hierarchy) - DOE 13/4/05

(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 has a general relief to the north and is situated on pale, deep sands, which have a low risk of water logging due to high infiltration rates (Department of Agriculture 2005). It is therefore not considered likely that the proposal will cause, or exacerbate, the incidence of flooding.

Methodology GIS Databases:
-Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DOE 15/9/04
-Hydrography, linear (hierarchy) - DOE 13/4/05

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

Comments

The area under application is within the gazetted Peel Harvey Catchment. On 4 January 1989 the Minister for Environment approved a management strategy for the Peel Inlet and Harvey Estuary.

This was followed in October of 1991 by conditions that were placed on the Minister for Agriculture, Minister for Transport (Read current Minister for Planning and Infrastructure) and the Minister for Waterways (read current Minister for Environment). Condition 5 of this ministerial statement imposed a moratorium on land clearing in the gazetted Peel Harvey Catchment until such time as the Minister for Environment was satisfied that land clearing within the catchment was environmentally acceptable.

The retention of deep rooted perennials within the Peel Harvey Catchment and minimising activities likely to lead to nutrient loss within the catchment should be considered to ensure consistency with the water quality improvement objectives currently being finalised under the proposed EPA Water Quality Improvement Plan for the Catchment.

The proponent has advised that the proposed development is for a rose flower nursery where the roses are grown hydroponically. This development is planned to eventually replace the existing nursery on an adjacent property. The nutrient rich water in a hydroponic nursery is recycled through the facility and fertiliser application can be tightly managed. Water from this process is required to be periodically changed with the waste water being irrigated over pasture or crops to minimise the nutrients within the wastewater lost to the environment. This should limit the impact the change in land use could have on the Peel Harvey Estuary. The management of the nutrients on-site should also be managed through a Nutrient Irrigation Management Plan that is either required under a groundwater licence issued by the Department of Water or the Development approval issued by the local council.

Development approval from the City of Rockingham (2007) has been received for the clearing of native vegetation.

A licence to construct a bore within the area under application has been issued by the Department of Water (DOW). DOW have advised that once the bore has been constructed a groundwater licence will be issued for the property.

Methodology GIS Database: Native Title Claims - DLI 7/11/05

4. Assessor's comments

Comment
The assessable criteria have been addressed and the clearing as proposed may be at variance to Principles g and i.

5. References

DEC (2006) Site Inspection, Lot 487 Doghill Road Baldivis. Site inspection undertaken 4/4/2006. Department of Environment

and Conservation, Western Australia.

City of Rockingham (2008) Direct interest submision. TRIM Ref 2006I/1417

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. (2007). 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

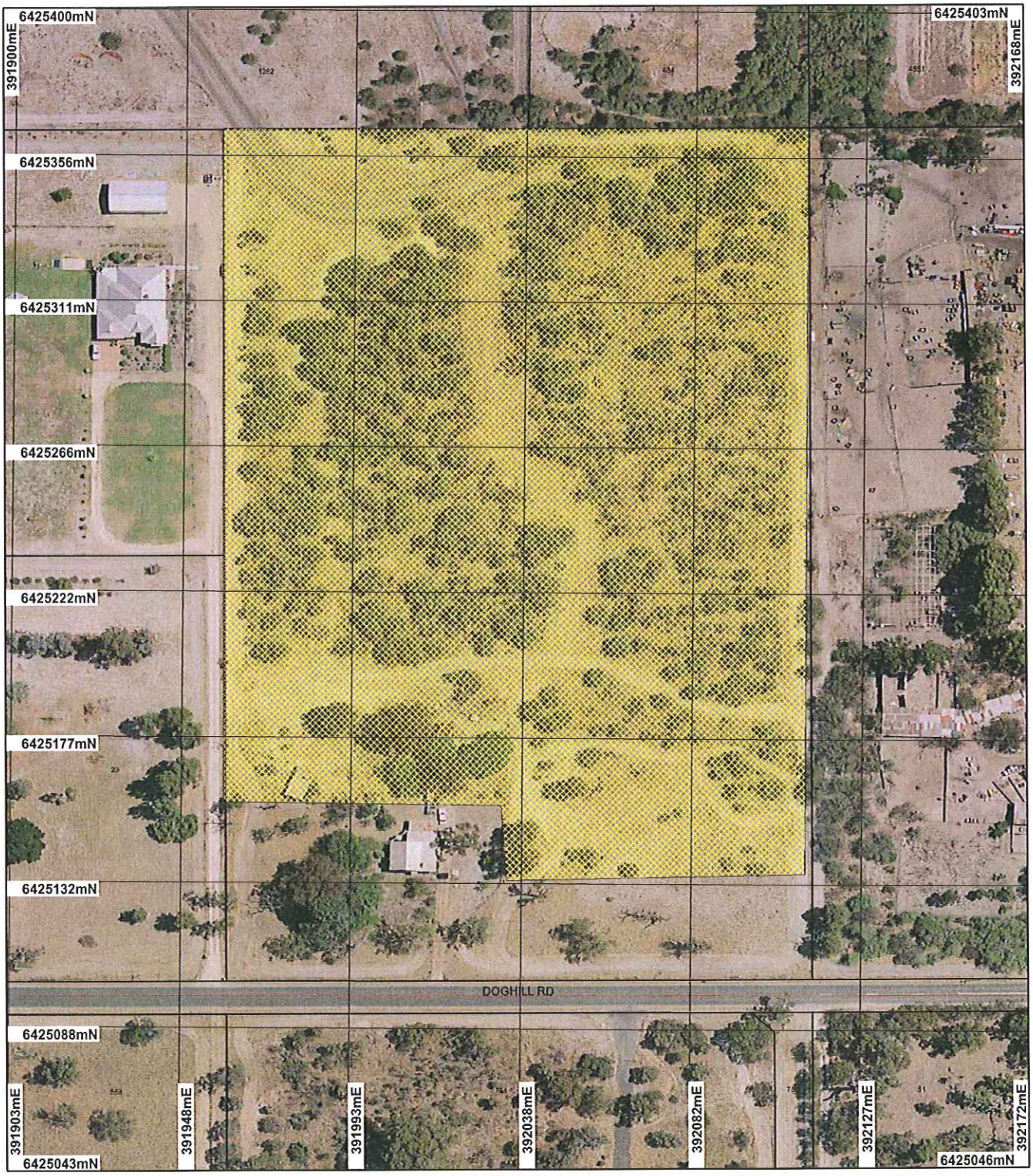
Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.

State of Western Australia (2005) Agmaps Land Manager CD Rom.

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)

Plan 2674/1



LEGEND

- Road Centrelines
- Cadastre for labelling
- Clearing Instruments
- Areas Approved to Clear
- Perth Metropolitan Area South 20cm Orthomosaic -

N

0 ~38 m

Scale 1:1577
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected, this may result in geometric distortion or measurement inaccuracies.

K Faulkner

Date 30/6/08

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

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Department of Environment and Conservation

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