



1. Application details

1.1. Permit application details

Permit application No.: 6116/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Viet Hoa Ta & Kim Chi Dong

1.3. Property details

Property: LOT 12 ON DEPOSITED PLAN 32520, PINJAR
Colloquial name:
Local Government Authority: City of Wanneroo

1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|--------------------|-----------|--------------------|---------------------|
| 1.9 | | Mechanical Removal | Horticulture |

1.5. Decision on application

Decision on Permit Application: Refuse
Decision Date: 14 August 2015

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 6: Medium woodland; tuart & jarrah (Shepherd et al, 2001). | Clearing 1.9 hectares of native vegetation within Lot 12 on Deposited Plan 32520 Pinjar, City of Wanneroo, for the purpose of expanding a market garden. | Excellent; Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994). To | The vegetation under application comprises of <i>Banksia attenuata</i> , <i>Banksia menziesii</i> , <i>Banksia illicifolia</i> , <i>Melaleuca preissiana</i> , with scattered <i>Eucalyptus todtiana</i> , <i>Eucalyptus marginata</i> and <i>Allocasuarina fraseriana</i> (sheoak) trees (DER, 2014). |
| Beard vegetation association 949: Low woodland; <i>Banksia</i> (Shepherd et al, 2001). | | Degraded; Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994). | The midstorey and understorey vegetation is intact with species comprising of <i>Xanthorrhoea preissii</i> , <i>Jacksonia furcellata</i> (midstorey), <i>Dasyogon bromeliifolius</i> <i>Desmocladius asper</i> , <i>Hibbertia hypericoides</i> , and <i>Patersonia occidentalis</i> (understorey). Numerous <i>Pyrorchis nigricans</i> (Red beak or Elephants ears) orchid leaves were emerging within sections of the proposed clearing area (DER, 2014). |
| Hedde Vegetation Complexes Pinjar Complex: Vegetation ranges from woodland of <i>E. marginata</i> - <i>Banksia</i> species to a fringing woodland of <i>E. rudis</i> - <i>M. preissiana</i> and sedgelands (Hedde et al, 1980). | | | Weed species were present throughout the application area but were more prevalent on the outskirts and became less noticeable within inner parts of the application area (DER, 2014). The vegetation under application is in degraded to excellent (Keighery, 1994) condition (DER, 2014) with the majority being in a very good condition. The condition and structure of the vegetation under application was determined via a site inspection undertaken by the Department of Environment Regulation (DER, 2014). |

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

The application is to clear 1.9 hectares of native vegetation for the purpose of extending an existing market garden. The vegetation under application is in a degraded to excellent (Keighery, 1994) condition (DER, 2014).

Several priority flora species have been recorded within 10 kilometres of the proposed clearing area, with four species occurring in the same vegetation and soil types as the application area. It is considered the vegetation under application comprises of suitable habitat for two of the recorded priority flora species. One of the identified priority flora has a highly restricted known distribution. A targeted survey would need to be undertaken to determine the presence or absence of priority flora species and their environmental significance in a local context.

One priority ecological community (PEC) has been recorded within 10 kilometres of the area under application. Northern Spearwood shrublands and woodlands (P3) is located approximately six kilometres from the proposed clearing area. Given the distance between the PEC and proposed clearing area, it is unlikely the proposed clearing will impact on the identified PEC.

Several fauna species of conservation significance have been recorded within the local area (10 kilometre radius) (Parks and Wildlife, 2007-). A site inspection of the proposed clearing area identified suitable foraging habitat for Carnaby's and Baudin's cockatoo and there was evidence of foraging occurring within the application area (DER, 2014). A confirmed roost site for Carnaby's cockatoo has been recorded approximately 200 metres from the applied area.

The vegetation under application may contain a high level of biological diversity, given the possible presence of priority flora, therefore the proposed clearing may be at variance to this principle.

Methodology

References:

- Parks and Wildlife (2007-)
 - DER (2014)
 - Keighery (1994)
- GIS Database:
- SAC Biodatasets - accessed July 2015

(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

Several fauna species of conservation significance have been recorded within 10 kilometres of the proposed clearing area. Species include; *Botaurus poiciloptilus* (Australian bittern), *Calidris ferruginea* (Curlew sandpiper), *Idiosoma nigrum* (Shield-backed Trapdoor spider), *Calyptorhynchus latirostris* (Carnaby's black cockatoo) and *Calyptorhynchus baudinii* (Baudin's cockatoo) (Parks and Wildlife, 2007).

Of the known fauna species it is considered that the area under application would provide suitable foraging habitat for Carnaby's cockatoo and Baudin's cockatoo (DER, 2014). Important foraging habitat for these species includes *Banksia attenuata*, *B. menziesii*, *B. grandis*, *B. ilicifolia*, *B. sessilis*, *B. prionotes*, *Corymbia calophylla* and *Eucalyptus marginata*. A site inspection of the area under application identified the vegetation to comprise of *Banksia attenuata*, *Banksia menziesii*, *Banksia ilicifolia*, *Melaleuca preissiana*, with scattered *Eucalyptus totidiana*, *Eucalyptus marginata* and *Allocasuarina fraseriana* (sheoak) trees (DER, 2014). The site inspection identified foraging occurring on *Banksia* cones within the application area (DER, 2014).

Within 10 kilometres of the proposed clearing area 28 Carnaby's cockatoo roost sites have been recorded. The closest roost site was recorded 200 meters north of the application area. Two confirmed Carnaby's cockatoo breeding sites have also been recorded within 10 kilometres of the application area.

One of the major threats to Carnaby's cockatoo is accumulative clearing of feeding habitat on the Swan Coastal Plain (Cale, 2003) with populations declining dramatically due to land clearing for agriculture in regional areas and for urban development around Perth (Shah, 2006). Clearing of feeding habitat on the Swan Coastal Plain poses a significant threat to the long term survival of Carnaby's cockatoo (Shah, 2006). Therefore all feeding habitat within the Swan Coastal Plain is considered significant.

Within 10 kilometres of the application area approximately 40 per cent of vegetation remains with the majority of this vested in conservation areas. Given this it is unlikely the vegetation under application is considered to be significant habitat for other fauna species.

The proposed clearing contains significant foraging habitat for Carnaby's cockatoo and Baudin's cockatoo therefore, it is at variance to this principle.

Methodology

References

- Cale (2003)

- DER (2014)
- Parks and Wildlife (2007-)
- Shah (2006)

(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 have been three rare flora species recorded within 10 kilometres of the area under application. Of the identified rare flora, one has been recorded within the same soil and vegetation type associated with the proposed clearing area.

This species has been recorded approximately 5.3 kilometres from the proposed clearing. The species grows in deep sandy soil, in mixed woodlands of jarrah and banksia (Brown et al, 1998). Its growth is suppressed by weed invasion and it tends to favour areas of lush undergrowth (Brown et al, 1998).

A site inspection of the area under application did not identify lush undergrowth. Considering this and the distance of the recorded rare flora species to the application area, it is unlikely the proposed clearing will impact on rare flora.

The proposed clearing is not likely to be at variance to this principle.

Methodology **References**
 - Brown et al (1998)
GIS Database:
 - SAC Biodatasets - accessed July 2015

(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**
 Two threatened ecological communities (TEC's) have been recorded within 10 kilometres of the proposed clearing area.

- Banksia attenuata woodland over species rich dense shrublands (SCP20a, endangered)
- Melaleuca hugelii - Melaleuca acerosa shrublands on limestone ridges (SCP26a, endangered)

Species associated with the above TEC's are represented within the application area (DER, 2014). However the vegetation under application does not comprise of rich dense shrublands or shrublands on limestone ridges, therefore it is unlikely the proposed clearing is representative of the identified TEC's.

The proposed clearing is not likely to be at variance to this principle.

Methodology **References**
 - DER (2014)
GIS Database:
 - SAC Biodatasets - accessed July 2015

(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 may be at variance to this Principle**
 The area under application is represented by Beard Vegetation Associations 6 and 949 which have 24 and 57 per cent respectively of their pre-European vegetation remaining in the Swan Coastal Plain IBRA Bioregion (Government of Western Australia, 2014). Heddle Vegetation Complex Pinjar has also been mapped within the area under application and has 29 per cent of its pre-European vegetation remaining in the bioregion (Parks and Wildlife, 2015).

The National Objectives and Targets for Biodiversity Conservation include a target that prevents the clearance of ecological communities with an extent below 30 per cent of that present pre-European settlement (Commonwealth of Australia, 2001). Beard Vegetation Association 6 and Heddle Vegetation Complex Pinjar are both below the 30 per cent threshold level.

Approximately 40 per cent of pre-European vegetation remains within 10 kilometres of the area under application, this includes large remnants within conservation areas. The vegetation under application is significant as a remnant as it contains foraging habitat for black cockatoo species however, the application is not within an extensively cleared landscape.

The proposed clearing may be at variance to this principle.

| | Pre-European (ha) | Current Extent (ha) | Remaining (%) | Extent DPaW Managed Lands (%) | in |
|--|----------------------|------------------------|------------------|---|----|
| IBRA Bioregion | | | | | |
| Swan Coastal Plain* | 1,501,221 | 580,697 | 39 | 37 | |
| Shire | | | | | |
| City of Wanneroo* | 67,516 | 31,428 | 47 | 51 | |
| Beard Vegetation Association in Bioregion | | | | | |
| 6* | 56,343 | 13,543 | 24 | 37 | |
| 949* | 209,983 | 120,389 | 57 | 56 | |
| Heddle Vegetation Complex | | | | | |
| Pinjar Complex** | 4,892 | 1,461 | 29 | 5 | |

Methodology References:
- Commonwealth of Australia (2001)
- Government of Western Australia (2014)*
- Parks and Wildlife (2015)**
GIS Database:
- Pre European 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 at variance to this Principle**
A Multiple Use Wetland (Lake Pinjar) is located adjacent to the area under application. The majority of this wetland has already been cleared for horticulture. Multiple Use Wetlands are said to have few important ecological attributes and functions remaining (Water and Rivers Commission, 2001). The wetland covers an area of approximately 316 hectares with less than five per cent of the mapped wetland containing vegetation.
Three Conservation Category Wetlands and five Resource Enhancement Wetlands have also been recorded within five kilometres of the application area.
Wetland vegetation such as *Melaleuca preissiana* was identified within the application area (DER, 2014). Given that wetlands have been mapped within close proximity to the applied area and wetland vegetation has been identified within the proposed clearing area, the proposed clearing is at variance to this principle.

Methodology References:
- Water and Rivers Commission (2001)
GIS Database:
- Geomorphic Wetlands (Mt Categories), Swan Coastal Plain
- Hydrography, Linear

(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 North Metropolitan and Gingin West Soil Surveys indicate that the area proposed to be cleared comprises of the following soil types;
Bassendean, Pinjar Phase. Map Unit 212Bs_P
Extensively swampy flats on sand over alluvial deposits. Wet and semi-wet soils (Commissioner of Soil and Land Conservation, 2010).
Bassendean Jandakot Phase. Map Unit 212Bs_Ja
Low, gently sloping dunes on Aeolian sands. Pale and deep sands (Commissioner of Soil and Land Conservation, 2010).
Bassendean Jandakot Phase soil type has a very high risk of wind erosion and waterlogging (Commissioner of Soil and Land Conservation, 2010).
Water erosion is unlikely to occur due to the soil types present and the lack of sufficient land slope (Commissioner of Soil and Land Conservation, 2010).
No salinity was observed on or off site (Commissioner of Soil and Land Conservation, 2010).

The risk of land degradation occurring in the form of wind erosion and water logging is very high given the soil types present within the area under application (Commissioner of Soil and Land Conservation, 2010).

The clearing as proposed is at variance to this clearing principle.

Methodology References:
- Commissioner of Soil and Land Conservation (2010)

(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**

Several conservation areas have been recorded within 10 kilometres of the proposed clearing area. This includes several Bush Forever sites and a large proportion of the Gngangara-Moore River State Forest. Approximately 50 per cent of the land within a 10 kilometres radius of the proposed clearing area is conservation land.

Gngangara-Moore River State Forest is located approximately 175 metres from the proposed clearing area. The closest Bush Forever site (398 within the state forest) to the application area is approximately 190 metres away.

The areas separating the application from the conservation areas comprise of established market gardens, buildings, cleared areas and vegetation in a degraded (Keighery, 1994) condition. Therefore the proposed clearing is not likely to impact upon the values of these conservation areas.

The proposed clearing is not likely to be at variance to this principle.

Methodology References:
- Keighery (1994)
GIS Database:
- Bushforever
- Parks and Wildlife 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 local area contains Multiple Use Wetlands, Resource Enhancement Wetlands and Conservation Category Wetlands. The closest recorded wetland is a Multiple Use Wetland which was recorded directly adjacent to the area under application. The proposed clearing area is flat and it is unlikely that water runoff will be significantly increased from the proposed clearing thus impacting on the nearby wetlands.

Groundwater salinity is mapped as less than 500 milligrams per litre of Total Dissolved Solids. The small scale of proposed clearing is not likely to increase groundwater salinity.

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

Methodology GIS Database:
- Geomorphic Wetlands (Mt Categories), Swan Coastal Plain
- Hydrography, Linear

(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 proposed clearing is not expected to increase the incidence or intensity of flooding due to the soil types present (Commissioner of Soil and Land Conservation, 2010).

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

Methodology References:
Commissioner of Soil and Land Conservation (2010)

Planning instruments and other relevant matters.

- Comments** The preliminary assessment report was sent to the applicant on 13 August 2014 and the applicant was invited to address the environmental issues identified during the assessment of the application. A response was received from the applicant on 23 January 2015 however, it did not address the issues raised in the assessment. An additional letter was sent to the applicant on the 19 March 2015 requesting advice on how they would like to proceed with this application. To date no additional advice has been received by the Department of Environment Regulation (DER).
- The Commissioner of Soil and Land Conservation (2010) has advised that the risk of eutrophication is likely to increase with the clearing of native vegetation on this site due to the soil types present. A portion of the proposed area to be cleared is of Bassendean, Pinjar Phase soil type which has a very high to extreme risk of phosphorous loss (Commissioner of Soil and Land Conservation, 2010).
- The City of Wanneroo (2014) has no record of an approved 'Market Garden' use over the property for which the clearing application has been lodged. Accordingly, the clearing application is considered premature by the City of Wanneroo (City of Wanneroo, 2014).
- A restrictive covenant exists over the property that states the following in regards to the removal of vegetation:
- "(d) not to remove, cut down or damage any vegetation on the land within the area identified as 'Native Vegetation' on the Management Plan, unless prior written approval is granted by the City"
- Approval has not been granted by the City of Wanneroo.
- The area under application falls within the Wanneroo Groundwater Area which is an area proclaimed under the Rights in Water and Irrigation Act 1914.
- The Department of Water confirms that a current Ground Water Licence (GWL154081) exists on the property. This current licence is being fully utilised and the Perth – Superficial aquifer in the Pinjar subarea is at this time fully allocated. Therefore, it is unlikely that additional water for the existing licence will be granted should an application be made. Given this, the Department of Water (DoW, 2014) has advised that they are unable to support the proposed clearing.
- The area under application was previously applied to be cleared in an application of 12 October 2010 (CPS 4021/1). The assessment of CPS 4021/1 identified a number of environmental concerns which the applicant was asked to address. The applicant was asked to contact the City of Wanneroo in relation to removing the restrictive covenant from the Certificate of Title. No response was received from the applicant, consequently CPS 4021/1 was refused on 13 January 2011.

- Methodology** References:
- City of Wanneroo (2014)
 - Commissioner of Soil and Land Conservation (2010)
 - DoW (2014)
- GIS Database:
- RiWI Act, Groundwater Areas
 - RiWI Act, Irrigation Districts
 - 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.
- Cale, B (2003) Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) Recovery Plan 2002- 2012. Department of Environment and Conservation. Wanneroo WA.
- City of Wanneroo (2014) Advice for clearing permit application CPS 6116/1 received 27/06/2014 (DER Ref: A785932)
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Commissioner of Soil and Land Conservation (2010); Land Degradation Advice and Assessment Report for clearing permit application CPS 4021/1 received 29/11/2010; Department of Agriculture and Food Western Australia (DER Ref: A341726).
- DER (2014) Site Inspection Report for Clearing Permit Application CPS 6116/1, Lot 12 Ziatas Road, Pinjar. Site inspection undertaken 24/06/2014. Department of Environment Regulation, Western Australia (DER Ref: A785929).
- DoW (2014) Water advice for clearing permit application CPS 6116/1 received 26/05/2014. Department of Water, Western Australia (DER Ref: A762445).
- Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2014. WA Department of Environment Regulation, Perth.
- Heddl, 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.
- Parks and Wildlife (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>. Accessed July 2015
- Parks and Wildlife (2015) 2015 South West Forest and Swan Coastal Plain Vegetation Complex Statistics: a report prepared for the Department of Environment Regulation. Current as of March 2015. Department of Parks and Wildlife, Perth,

Western Australia.

- Shah, B. (2006) Conservation of Carnaby's Black-Cockatoo on the Swan Coastal Plain, Western Australia. December 2006. Carnaby's Black-Cockatoo Recovery Project. Birds Australia, Western Australia.
- 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.