



1. Application details

1.1. Permit application details

Permit application No.: 1992/1
 Permit type: Area Permit

1.2. Proponent details

Proponent's name: CSBP Limited

1.3. Property details

Property: LOT 20 ON DIAGRAM 78086 (Lot No. 20 PORT KWINANA BEACH 6167)
 Local Government Area: Town Of Kwinana
 Colloquial name:

1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|--------------------|-----------|--------------------|---------------------|
| 0.38 | | Mechanical Removal | Industrial |

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 |
|---|---|--|--|
| Heddlle Vegetation Complex: | The proposal is to clear 0.38ha for the purpose of site buildings, car park and industrial lay down area. | Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994) | Vegetation clearing description based on a DEC site inspection on 14/9/2007. |
| Quindalup Complex: Coastal dune complex consisting mainly of two alliances - the strand and fore-dune alliance and the mobile and stable dune alliance. Local variations include the low closed forest of <i>M. lanceolata</i> - <i>Callitris preissii</i> and the closed scrub of <i>Acacia rostellifera</i> . | The vegetation under application comprises of <i>Eucalyptus gomphocephala</i> , <i>Acacia saligna</i> and <i>Xanthorrhoea preissi</i> . Understorey consists of a variety of annual weed grasses. | | Site Degraded to completely degraded, average degraded. |
| Beard Vegetation Association: 3048 - Shrublands; scrub-heath on the Swan Coastal Plain | | | |

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 vegetation under application is located in the Kwinana industrial area, and is restricted to *Eucalyptus gomphocephala*, *Acacia saligna* and *Xanthorrhoea preissi* over an understorey of weeds. The site inspection identified that the vegetation on-site was not at an age to produce hollows or providing an understorey considered suitable habitat for ground dwelling fauna.

Given the low species diversity, the absence of significant fauna habitat and the degraded condition of the vegetation under application, the vegetation is not considered likely to comprise a high level of biodiversity.

Methodology GIS Databases - SAC BIO Datasets - 02/05/07
 DEC Site visit - 14/09/07

(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

Within the local area (5km radius) there have been four recorded occurrences of Priority Fauna which include: Quenda (*Isodon obesulus fusciventer*) (P5); Water Rat (*Hydromys chrysogaster*) (P4); and Carpet Python (*Morelia spilota imbricata*) (P4).

Given the absence of dense understorey or wetlands within the applied area the vegetation under application is not considered likely to provide suitable habitat for ground-dwelling fauna. The site inspection identified that the Tuarts on-site were not of a hollow bearing age and therefore would not be considered likely to provide significant nesting habitat.

Given the limited area (0.38ha) under application, the lack of dense understorey and hollows, and the degraded condition of the vegetation, it is not considered likely that the proposed clearing will impact significant habitat for indigenous fauna.

Methodology GIS Databases - SAC BIO Datasets - 11/09/07
DEC Site visit - 14/09/07

(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 Declared Rare Flora (DRF) within the local area (5km radius) being *Diuris micrantha* which is approximately 2.3km to the south east of the area under application.

This DRF species is considered unlikely to be present within the area under application, as it is usually found in 'brown loamy clay in winter-wet swamps, in shallow water' (Western Australian Herbarium 1998). The area under application is on the Quindalup sands and is not mapped as a wetland.

Given that the vegetation under application does not include suitable habitat for the DRF species found in the local area, it is therefore not considered likely that the vegetation includes, or is necessary for the continued existence of, rare flora.

Methodology Site visit - 14/9/2007
Western Australian Herbarium (1998-)

(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

Within the local area (5km radius) there are 11 known occurrences of Threatened Ecological Communities (TEC), with the closest being located approximately 3.3km to the south of the area under application. Ten of these TECs south of the area under application have been identified as Floristic Community Type (FCT) 19a - Sedgelands in Holocene dune swales of the southern Swan Coastal Plain.

There is one mapped TEC 4km to the northeast of the area under application which has been identified as FCT 26a - Melaleuca huegelii and Melaleuca acerosa shrublands on limestone ridges.

The vegetation under application comprises *Eucalyptus gomphocephala*, *Acacia saligna* and *Xanthorrhoea preissi* and is considered to be in degraded condition. In addition the vegetation is not located within a dune swale or on a limestone ridge.

Given the position of the area under application in the landscape, the degraded condition of the vegetation under application and the lack of indicator species relevant to TEC in the local area, it is not considered likely that the vegetation under application comprises, or is necessary for the maintenance of, a TEC.

Methodology Gibson et al (2004)
GIS Databases - SAC BIO Datasets - 11/09/07

(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

The vegetation under application is identified by Heddl et al. (1980) as 'Quindalup Complex' of which there is 47.1% of pre-European vegetation remaining, and which is considered to be of 'Depleted' status for biodiversity conservation (Department of Natural Resources and Environment 2002; EPA 2006).

The vegetation under application is also part of Beard vegetation association 3048 of which there is 28.7% remaining (Shepherd 2006) which is considered to be vulnerable (Department of Natural Resources and Environment 2002).

Although the identified Beard vegetation association has less than the recommended 30% minimum of Pre-European extent remaining, the applied area is considered to be within a constrained area. The EPA (2003) recognises the Perth Metropolitan Region as a 'constrained area', providing for the reduction of vegetation complexes remaining to a minimum of 10% of the pre-European extent.

Given the area under application is in a constrained area, that there is 39.7% of vegetation remaining in the Town of Kwinana and the proposed clearing is limited to 0.38 hectares in a degraded condition, it is not considered likely that the vegetation under application would be significant as a remnant. The proposed clearing is therefore not considered likely to be at variance to this Principle.

| | Pre-European (ha) | Current (ha) | Remaining % | Conservation status**** | % in reserves |
|------------------------------|-------------------|--------------|-------------|-------------------------|---------------|
| Swan Coastal Plain | 1,501.456 | 571,758 | 38.1%** | Depleted | |
| Town of Kwinana | 11,980.55 | 4,760.18 | 39.7%* | Depleted | |
| Hedde vegetation complex | | | | | |
| - Quindalup Complex | 38,238 | 18,000 | 47.1%*** | Depleted | 5.2% |
| Beard vegetation association | | | | | |
| - 3048 | 14,575 | 4,184 | 28.7% | Vulnerable | 19.2% |

* (Shepherd et al. 2001)

** (Shepherd 2006)

*** (EPA, 2006)

**** (Department of Natural Resources and Environment 2002)

Methodology Department of Natural Resources and Environment (2002)
EPA (2006)
Shepherd (2006)
GIS Databases:
Hedde Vegetation Complexes - DEP 21/06/95
Pre-European Vegetation - DA 01/01

(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**

The area under application is located approximately 1.1km to the west of a Resource Enhancement Wetland and 2km to the north west of a Conservation Category Wetland (CCW). The Peel Main Drain is located 6.2km to the east of the area under application.

Given the distance to the nearest watercourse or wetland and that no wetland dependant vegetation was observed during the site visit the proposal is considered not likely to be at variance to this principle.

Methodology DEC Site visit - 14/9/2007
GIS Databases:
EPP, Lakes - DEP 1/12/92
Geomorphic Wetlands (Classification), Swan Coastal Plain - DEC
Hydrography, linear (hierarchy) - DOW

(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**

Soils within the area under application are part of the Quindalup system and comprise white calcareous sands which have a very high risk of wind erosion. These soils have a low to nil risk of acid sulphate soils, and are generally associated with a low to nil risk of salinity (State of Western Australia 2005).

Although the soils identified on site have a high risk of wind erosion, the vegetation under application is limited to 0.38 hectares and is considered to be in a degraded condition. In addition, the ground within the applied area is covered with non-native grasses, which would minimise the risk of wind erosion. It is therefore not considered likely that the proposed clearing would result in appreciable land degradation.

Methodology State of Western Australia (2005)
GIS Databases - Acid Sulfate Soil Risk Map, Swan Coastal Plain - DEC
GIS Databases:
Acid Sulphate Soil Risk Map, Swan Coastal Plain - DEC

(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

The nearest conservation reserve is a Bush Forever site located approximately 1.2km to the east of the area under application. The Cockburn sound is located 1.5km to the west with the Rockingham Lakes and Beeliar Regional parks also within the local area.

The vegetation under application is limited to 0.38 hectares located within the Kwinana industrial strip and has limited connectivity to the surrounding vegetation including the conservation reserves.

Given the distance to the nearest conservation reserve, and that the vegetation under application is 0.38 hectares with limited connectivity, it is not considered likely that the proposed clearing would have any impact on the environmental values of conservation reserves in the local area.

Methodology GIS Databases:
Bushforever - MFP 07/01
CALM Managed Lands and Waters - CALM 1/07/05
CALM Regional Parks - CALM 12/04/02

(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 nearest watercourse is the Peel Main Drain which is located approximately 6.2km east, with the Cockburn sound 1.5km to the west. The applied area has a low risk of salinity and water erosion and a nil to low risk of acid sulphate soils. The area under application is not located within a Public Drinking Water Source Area (PDWSA).

Given that the proposed clearing is limited to 0.38 hectares of vegetation in a degraded condition, it is not considered likely to result in salinity causing deterioration in groundwater quality. In addition, due to the low gradient within the area under application and distance to the nearest watercourse, wetland and ocean the proposed clearing is not considered likely to result in water erosion causing deterioration in surface water quality.

Methodology DEC Site visit - 14/9/2007
GIS Databases:
Acid Sulphate Soil Risk Map, Swan Coastal Plain - DEC
Geomorphic Wetlands (Classification), Swan Coastal Plain - DEC
Hydrography, linear (hierarchy) - DOW
Salinity Risk LM 25m - DOLA 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 area under application is located at an elevation of 4m within a flat landscape. The soils identified on site are Quindalup sands which have a low risk of water logging due to their poor water holding capacity (State of Western Australia 2005).

Given the high infiltration rates of the sandy soils on site, it is not considered likely that the proposed clearing of 0.38 hectares would cause or exacerbate the incidence of flooding.

Methodology State of Western Australia (2005)
GIS Databases - Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The lot under application is part of a Native Title Claim however, since it is freehold land Native Title is extinguished under the Native Title Act. Therefore the clearing as proposed should not fall under the future acts process of the Native Title Act 1993.

Methodology No submissions were received and no further approvals are required for this proposal.
GIS Database - Native Title Claims - DLI

4. Assessor's comments

| Purpose | Method | Applied area (ha)/ trees | Comment |
|------------|--------------------|--------------------------|--|
| Industrial | Mechanical Removal | 0.38 | The assessable criteria have been addressed and no objections were raised. |

5. References

Shepherd (2006) 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.

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 (2006) Guidance for the Assessment of Environmental Factors -level of assessment of proposals affecting natural areas within the System 6 region and Swan Coastal Plain portion of the System 1 Region. Report by the EPA under the Environmental Protection Act 1986. No 10 WA.

Gibson et al. (2004) A Floristic Survey of the Southern Coastal Plain, CALM.

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.

Site Visit 14/9/07, Department of Environment and Conservation (DEC), Western Australia. TRIM ref DOC34150.
State of Western Australia (2005) Agmaps Land Manager CD Rom

Western Australian Herbarium (1998-). FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.calm.wa.gov.au/> Accessed on 11 September 2007.

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) |

