



1. Application details

1.1. Permit application details

Permit application No.: 2806/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: B & J Catalano Pty Ltd

1.3. Property details

Property: LOT 42 ON DIAGRAM 67196 (House No. 35 STANLEY WELLESLEY 6233)

Local Government Area: Shire Of Harvey

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
3.2		Mechanical Removal	Extractive Industry

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 1000: Mosaic: Medium forest; jarrah-marri / Low woodland; banksia / Low forest; tea-tree (Melaleuca spp.) (Hopkins et al. 2001; Shepherd et al. 2001).	The proposal includes clearing 3.4 ha for sand extraction. The vegetation under application is open jarrah/marri forest, including interspersed tea-trees, banksias, Xylomelum occidentale and Macrozamia riedlei. There is no distinct native middle storey or ground cover layer. (DEC 2006).	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The vegetation within the application area was assessed through aerial photography and a site visit (DEC, 2008)
Hedde Vegetation Complex: Bassendean Complex Central and South - Woodland; jarrah-she oak-banksia / Low woodland; Melaleuca spp. (Hedde et al. 1980).	The area contains a very open structure within a low woodland vegetation complex. Several areas have previously been cleared and contain severe weed invasion; however a portion under application (particularly near Stanley Rd) contains a thicker understorey (DEC, 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 proposed clearing of 3.4 ha is for the purpose of sand extraction, within the Kemerton Buffer designated for light industry. The vegetation is of degraded to good (Keighery, 1994) condition, native woodland consisting predominantly of *Corymbia calophylla* (marri) and *Eucalyptus marginata* (jarrah). The native middle storey and ground cover layer consists of few species and is very open with severe weed invasion occurring (DEC, 2006).

A flora survey of a nearby block of vegetation in similar condition to the application area confirmed the presence of 2 Priority flora species; one P3 and one P4 (Outback Ecology 2006). DEC (2007a) advice indicates the P3 species, *Acacia semitruallata*, is not of regional significance, and further advice (DEC, 2007b) on the P4 species, *Caladenia speciosa*, confirmed this species is also not of regional significance as the population on site is low.

The area is within 1km of a large DEC-managed state forest to the north and the Brunswick River to the south. The linear size and shape of the vegetation under application gives it a large edge:area ratio, and as such is likely to become further degraded due to edge effects from surrounding activities.

The area under application is unlikely to comprise a high level of biological diversity due to the condition of the vegetation and in comparison to the surrounding vegetation that is in better condition. Weed and dieback conditions will be placed on the permit to ensure the surrounding vegetation and biodiversity is not impacted by clearing.

Methodology DEC (2006)
DEC (2007a)
DEC (2007b)
Keighery (1994)
Outback Ecology (2006)
GIS Databases:
- CALM Managed Lands and Waters - CALM 1/06/04;
- Bunbury 50cm ORTHOMOSAIC - DLI04

(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 site visit undertaken (DEC, 2006) indicates that the vegetation under application may provide some habitat for fauna species and provides a vegetation link between DEC-managed land to the north and the Brunswick River to the south.

DEC (2007a) advice indicates the area contains vegetation known to support populations of Ringtail possums. However due to the size of the proposed clearing and given the degraded nature of the application area, the proposed clearing is considered unlikely to be at variance to this principle.

Methodology DEC (2007a)
DEC (2006)
GIS Layers:
Sac Biodatasets (101108)

(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 are 7 known rare flora species populations within the local area (10km radius) of the proposed clearing, none with a 5km radius of the application area. No known occurrences of rare flora occur within the notified area (DEC, 2007a).

Due to the distance, lack of vegetation links and the condition of the area under application, it is unlikely the proposed clearing would contain or be necessary for the continued existence of rare flora.

Methodology DEC (2007a)
GIS databases:
- Sac biodatasets 101108
- Bunbury 1m Orthomosaic - DLI 03

(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**
Corporate data indicates one known occurrence of a threatened ecological community (TEC) approximately 9.2km south of the notified area; however the proposal will not impact on any local TEC of regional significance (DEC, 2007a).

Therefore, the proposal is unlikely to be at variance to this Principle.

Methodology DEC (2007a);
GIS databases:
- Threatened Ecological Communities - CALM 15/7/03;
- Threatened Plant Communities - DEP 06/95;
- Bunbury 1m Orthomosaic - DLI 03

(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 within the Swan Coastal Plain Bioregion in the Shire of Harvey of which there is 41.8% and 60.1% respectively (Shepherd et al. 2007).

The application area is also composed of Beard Vegetation Association 1000 (Hopkins et al. 2001) and a component of Heddle Vegetation Complex Bassendean Complex Central and South of which there is 28.59% (Shepherd et al. 2007) and 27.0% (Heddle et al. 1980) remaining respectively. These percentages are lower than the National Objectives Targets for Biodiversity Conservation, which includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-1750 (EPA 2000).

From aerial mapping approximately 55% of Lot 42 has been previously cleared for sand extraction. The area under application is the last remaining patch of vegetation in the southern end of the property, has been isolated and varies between degraded to good (Keighery, 1994) vegetation condition.

The area will be revegetated to pre-European clearing extent after extraction works are completed as conditions of a granted permit. This revegetation will result in remnant vegetation of healthier conditions with a higher biodiversity value than that currently existing.

Therefore, the application is not likely to be at variance to this Principle.

Methodology

EPA (2000)
Keighery (1994)
Heddle et al. (1980)
Hopkins et al. (2001)
Shepherd et al. (2007)
GIS databases:
- Heddle Vegetation Complexes - DEP 21/06/95
- Interim Biogeographic Regionalisation of Australia - EM 18/10/00
- Local Government Authorities - DLI 8/07/04
- Pre European Vegetation - DA 01/01
- Bunbury 1m Orthomosaic - DLI 03

(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 are no environmental protection policy lakes, RAMSAR wetlands and/or ANCA wetlands within the local area (10km radius) of the proposed clearing.

The Brunswick River is located 900m south of the application area with a direct vegetation link. The Brunswick River and surrounding wetland is a Conservation category wetland. Due to the distance between the area under application and the nearest water course or wetland, the proposed clearing is unlikely to affect this watercourse.

Given the above, the area under application is not considered to be growing in an environment associated with a watercourse or wetland, and it is unlikely the proposed clearing would impact on local watercourses and wetlands.

Methodology

GIS databases:
- ANCA, Wetlands - CALM 08/01
- EPP Areas - DEP 06/95
- EPP Lakes - DEP 28/07/03
- Geomorphic Wetlands (Mgt Categories) Swan Coastal Plain - DoE 15/9/04
- Hydrography Linear - DoE 1/2/04
- RAMSAR, Wetlands - CALM 21/10/02
- Busselton 50cm ORTHOMOSAIC - DLI03
- Bunbury 1m Orthomosaic - DLI 03

(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 area under application has no mapped risk of Acid Sulphate Soils (ASS), a groundwater salinity level of 500-1000mg/L and a low salinity risk. The Department of Agriculture and Food Western Australia (2006) advises that the application raises no potential land degradation issues.

Therefore the area under application is unlikely to be at variance to this Principle.

- Methodology** DAFWA (2006);
GIS databases:
- Acid Sulfate Soil Risk Map, SCP - DoE 01/02/04
- Salinity Risk LM 25m - DOLA 00.
- Groundwater Salinity, Statewide - 22/02/00

(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 51(h) Reserve (DEC Managed Lands) is located 450m north of the notified area. There is currently extractive industry occurring between the area under application and the DEC Managed Land.

Due to the condition of the vegetation, the proposed clearing is unlikely to further impact on the environmental values of neighbouring conservation areas; therefore the proposal is unlikely to be at variance to this Principle.

- Methodology** GIS databases:
- CALM Managed Lands and Waters - CALM 1/06/04;
- Register of National Estate - EA 28/01/03;
- System 6 Conservation Reserves - DEP 06/95;
- System 1-5 and 7-12 Areas - DEP 06/95;
- Bunbury 1m Orthomosaic - DLI 03

(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 area proposed to be cleared is within the Leschenault Estuary-Lower Collie Hydrographic Catchment Area and the Bunbury RIWI ground water area, with a low salinity risk mapped for the area under application.

Although the proposed clearing may cause some short term degradation of local water quality, the required revegetation will mitigate any long term degradation of local water quality.

- Methodology** GIS databases:
- Hydrographic Catchments, Catchments - DoE 3/4/03
- RIWI Act, Groundwater Areas - WRC 13/06/00
- 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

DAFWA (2006) advise "clearing of further vegetation is unlikely to significantly increase surface runoff, which would contribute to stream flows".

Due to the scale and proposed revegetation, the proposed clearing is unlikely to exacerbate the incidence or intensity of flooding.

- Methodology** DAFWA (2006);
GIS Database:
- Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The property is zoned Kemerton Buffer in the Shire of Harvey town planning scheme. It is zoned rural under the Greater Bunbury Regional Scheme.

The Shire of Harvey has approved and issued an extractive industry licence for this property (DEC TRIM Ref: DOC65635) and issues related with illegal clearing have been resolved (Trim Ref: DOC 52434).

- Methodology** Trim Ref (DOC 52434)
Trim Ref (DOC65635)
GIS Databases:
- Town Planning Scheme Zones - MFP 08/98

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing is not likely to be at variance to any of the clearing Principles.

5. References

- DEC (2006) Site Inspection Report for Clearing Permit Application CPS 1510/1, Lot 42 Stanley Road, Wellesley. Site inspection undertaken 24/10/2009. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC7977).
- DEC (2007a). Regional Advice to Assessing Officer, Department of Environment and Conservation Trim Ref DOC19139.
- DEC (2007b). Regional Advice to Assessing Officer, Department of Environment and Conservation Trim Ref DOC15916.
- Department of Agriculture and Food (2006) Advice. Commissioner of Soil and Land Conservation. DEC TRIM Ref: DOC10787.
- 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.
- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Outback Ecology (2006). Vegetation Survey of Bushland at Lot 50 Stanley Road, Leschenault, and General Recommendations to Minimise Soil Erosion, Western Australia. TRIM Ref: DOC15919
- 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.

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)