



1. Application details

1.1. Permit application details

Permit application No.: 838/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Hovey Property Pty Ltd

1.3. Property details

Property: LOT 122 ON DIAGRAM 59932 (Lot No. 122 OLD COAST PARKFIELD 6233)
Local Government Area: Shire Of Harvey
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.8		Burning	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: Unit 998 - Medium woodland; tuart	1.8 hectares of eight year old regrowth.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation condition established through aerial photography and discussions with a DoE officer, who had previously been on site, confirming few native species and many weed species are present within the clearing area.
Hedde: Yoongarillup Complex - Dominated by an extensive woodland of tuarts. A large number of peppermints are found within the second storey.		Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	

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 1.8 hectares under application is in Degraded condition (Keighery 1994). It was previously cleared eight years ago for sand extraction and has not regenerated well.

It is believed the topsoil from the original clearing was not retained, resulting in the loss of any residual seed and rootstock. The likelihood of the area self regenerating to its original structure is therefore highly unlikely. A DoE officer completing the site inspection made the following comment 'The vegetation consists of very few native species and a high amount of weed species (pers comm. DoE officer)'.

In it's present state, and given the past land use, the vegetation under application is thought to have a low level of biodiversity. On completion of the extraction process, the applicant has committed to revegetating the area with native species local to the area. The Department believes this rehabilitation will result in the area establishing a higher level of biodiversity than if it was left untouched in it's current state.

The Department believes the proposal is not likely to be at variance to this principle.

Methodology

Keighery (1994)
Pers comm. DoE officer (2005)
GIS database:
Bunbury 1m Orthomosaic - DLI 03

(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 is unlikely to provide significant habitat for fauna as it is in Degraded (Keighery 1994) condition. The area was cleared approximately eight years ago by the previous owners for a sand extraction operation. From aerial photography it is clear the regrowth occurring within the proposed area is sparse with much of it appearing to be virtually absent of any vegetation.

A site inspection completed by a Department's officer confirmed the condition of the vegetation as Degraded (Keighery, BJ 1994) with many weeds dominating the site.

Given the above information the vegetation proposed for clearing is considered to have little to no habitat value for local fauna. The vegetation has a low species composition and requires intensive management to be capable of regenerating to a state where it could be considered to have any habitat value.

Methodology Keighery (1994)
Pers comm. DoE officer (2005)
GIS database:
- Bunbury 1m Orthomosaic - DLI 03

(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 seven Declared Rare Flora (DRF) populations within the local area (10km radius) of the proposed clearing. The closest being *Drakaea micrantha* located 2.8km east of the area proposed to clear. There is no vegetation link between these DRF and the area under application.

There are no Priority 1 populations within the local area.

There are two Priority 2 populations within the local area of the proposed clearing. The closest being *Boronia capitata* subsp. *gracilis* located 8.8km north east of the proposed clearing.

There are three Priority 3 populations mapped within the local area of the proposed clearing. The closest being *Lasiopetalum membranaceum* located 5.9km south west of the area under application.

There are four Priority 4 populations mapped within the local area of the proposed clearing. The closest being *Caladenia speciosa* located 6.1km north of the area under application. These are located within the same vegetation type, Beard unit 998.

None of the Priority species identified as existing within the local area are linked to the area under application by vegetation.

The vegetation proposed for clearing was considered to be in degraded condition (Keighery BJ, 1994) by the officer completing the site inspection. The vegetation lacked the species composition and structure typically known to be representative of the Yoongarillup complex. Based on the descriptive evidence available, in its current degraded state, the land in question is unlikely to support viable populations of the identified DRF or priority species existing within the local area.

The Department believes the proposal is not likely to be at variance to this principle.

Methodology Keighery (1994)
GIS databases:
- Declared Rare and Priority Flora List - CALM 13/08/03
- Bunbury 1m Orthomosaic - DLI 03
- Pre European Vegetation - DA 01/01
- Hedde et al. (1980)

(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 two Threatened Ecological Communities (TEC) within the local area, the closest being KEMERTON01 located 7.2km north east of the proposed clearing. There is no vegetative link between these TEC's and the area under application.

There are no known occurrences of Threatened Plant Communities within a 10km radius of the proposed clearing.

The Department concludes the proposal is not likely to be at variance to this principle.

Methodology 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 application is located in the Swan Coastal Plain Bioregion in the Shire of Harvey. The extent of native vegetation in these areas is 41.8% and 60.1% respectively (Shepherd et al. 2001).

The vegetation proposed for clearing is a component of Beard Unit 998 (Hopkins et al. 2001) of which there is 35.9% (Shepherd et al. 2001) of the pre-European extent remaining. The area has also been categorised as falling within the Yoongarillup Complex of which there is 45% of the original native vegetation remaining. The Department of Natural Resources classes both of these amounts to be 'Depleted'.

The vegetation has a low species composition and no structure. Much of the area is absent of any vegetation, with native species spread sparsely throughout the site. Many exotic species exist within the area proposed for clearing.

In its current condition, and given it has been eight years since the vegetation was originally cleared, it is believed there is little residual native seed and rootstock in the soil for the area to regenerate to its pre-existing state.

The Department concludes the proposal is not at variance to this principle.

Methodology Keighery (1994)
Department of Natural Resources and Environment (2002)
Shepherd et al. (2001)
Hopkins et al. (2001)
Heddle et al. (1980)
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

(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 is an EPP Lake (also recognised as a Resource Enhancement wetland) approximately 400m east of the site proposed for clearing. The Department believes a buffer of this distance is sufficient to prevent any impacts on the wetland. The Extractive Industry Licence issued by the Shire also restricts the applicant from intercepting the watertable by specifying that the maximum depth of the excavation remain at least 1 metre from the groundwater.

There are many other Conservation, Resource Enhancement, and Multiple Use wetlands within the local area. The vegetation proposed for clearing is not considered to be in association with any of these wetlands given the distance from them and its degraded condition.

The Wellesley River is located 6.6km east of the proposed clearing.

The Leschenault Estuary lies 4.6km south west of the area proposed to clear. There is no direct vegetation link between the estuary and the area under application.

The Harvey Diversion Drain is 5.8km north of the proposed clearing.

There is a RAMSAR wetland located 6.3km north west of the proposed site. There are two ANCA wetlands within the local area, the closest being 6.7km north west of the proposed site. There is no direct vegetation link between these wetlands and the area under application.

There are many other EPP Lakes within the local area however the vegetation proposed for clearing has no association with these.

The Department does not believe the clearing of the proposed vegetation would impact any of the identified wetlands or watercourses and therefore concludes the proposal is not likely to be at variance to this principle.

Methodology Keighery (1994)
GIS databases:
- ANCA, Wetlands - CALM 08/01
- 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
- 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**
There is no mapped risk of Acid Sulphate Soils (ASS) for the area under application.

Ground water salinity is mapped at 500-1000 mg/L for the area under application, presenting a low risk.

The Extractive Industry Licence issued by the Shire requires the proponent to revegetate the site with species endemic to the area, thereby stabilising the soil and preventing possible erosion issues.

The Department believes the proposal is not likely to be at variance to this principle.

Methodology Keighery (1994)
GIS databases:
- Acid Sulfate Soil Risk Map, SCP - DoE 01/02/04
- Salinity Risk LM 25m - DOLA 00.
- Groundwater Salinity, Statewide - 22/02/00
- Bunbury 1m Orthomosaic - DLI 03

(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**
There are three System 6 Conservation Reserves within a 10km radius of the area under application. The closest being 800m south east of the proposed clearing.

Five CALM Managed Lands exist within a 10km radius of the area under application.

The Myalup State Forest is located 5.7km north, north west of the proposed clearing.

The Yalgorup National Park is located 5.9km north, north east of the area under application.

The Byrd Swamp Nature Reserve is found 9.3km north east of the proposed site.

An un-named Nature Reserve/Leschenault Peninsula Conservation Park exists 4.6km south of the area under application.

Two Registered National Estates are found within a 10km radius of the area applied to clear.

Yalgorup National Park exists 6.5km north, north west of the area proposed for clearing.

An Executive Director Freehold reserve is located 400m south east of the proposed clearing.

Given the size of the area proposed for clearing and its degraded condition, the Department's believes it is unlikely the clearing would impact any of the conservation areas identified.

Methodology Keighery (1994)
Pers comm. DoE officer (2005)
GIS database:
- CALM Managed Lands and Waters - CALM 1/06/04
- Register of National Estate - EA 28/01/03
- System 6 Conservation Reserves - DEP 06/95
- Bunbury 1m Orthomosaic - DLI 03
- Pre European Vegetation - DA 01/01

(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 applied to clear is not within a Public Drinking Water Source Area.

The area under application is within the northern part of the Leschenault Estuary, Lower Collie Hydrographic Catchment Area.

The property is within the proclaimed South West Coastal Ground Water area. There are several licenced users within the local area including neighbours bordering the property.

The Extractive Industry Licence issued by the Shire contains a condition requiring the excavation operation to remain at least 1 metre above the watertable, ensuring there are no impacts on the licenced users. This condition will also ensure there is no groundwater contamination and protect the ecosystems reliant on this resource.

The Department concludes the proposal is not likely to be at variance to this principle.

Methodology Keighery (1994)

GIS databases:

- Hydrographic Catchments, Catchments - DoE 3/4/03
- Public Drinking Water Source Areas (PDWSAs) - DOE 29/11/04
- RIWI Act Groundwater Areas WRC 13/06/00

(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

Due to the scale of the proposed clearing, flooding impacts are unlikely to occur.

Methodology GIS databases:

- Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The area under application is zoned general farming.

The applicant obtained planning approval and an Extractive Industry Licence, for the proposed development, from the Shire on 15 March 2006.

The Department of Environment issued the proponent with a Registration, R1819, for a Mobile Screening Plant on 2 November 2005.

The Shire of Harvey referred the application to the EPA on 16 June 2005. The EPA completed the EIA and the level of assessment was advertised on 9 January 2006 as 'Not Assessed - Public advice given and managed under part V of EP Act' (SWD45725). No appeals were received.

Methodology

- EP Registration, R1819 (TRIM ref SWO28323)
- Shire Approval (TRIM ref SWD46639)
- EPA Services Unit advice on assessment level of EIA (TRIM ref SWD45725)
- EPA EIA advertisement of assessment level (TRIM ref SWD45752)
- GIS database:
 - Town Planning Scheme Zones - MFP 8/98

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Extractive Industry	Burning	1.8	Grant	<p>The proposed clearing is not likely to be at variance to any of the principles.</p> <p>The vegetation was rated as degraded (Keighery BJ 1994) with many exotic species existing within the site.</p> <p>Since being cleared eight years ago, the area has struggled to regenerate and it is believed its condition will not improve without intensive management.</p> <p>The applicant has committed to revegetating the area, on completion of the extraction operation, back to its pre-existing structure with local native species.</p>

5. References

- 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.
- Hedde, 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.
- Hill, A.L., Semenuik, C. A, Semenuik, V. Del Marco, A. (1996) Wetlands of the Swan Coastal Plain. Volume 2b, Wetland mapping, classification and evaluation. Wetland Atlas. WRC and DEP. Perth WA.
- 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.
- Mattiske Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.
- 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.

6. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management
DAWA	Department of Agriculture
DEP	Department of Environmental Protection (now DoE)
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 DoE)