



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3621/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: TM and A Pesce Pty Ltd

1.3. Property details

Property: Mining Lease 70/1173
Local Government Area: Manjimup
Colloquial name: N/A

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.6		Mechanical Removal	Mineral Production

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 associations have been mapped at a 1:250,000 scale for the whole of Western Australia. Two Beard vegetation associations are located within the application area (GIS Database): 3: Medium forest; jarrah-marri, (Shepherd, 2007); and 1144: Tall forest; karri & marri (<i>Corymbia calophylla</i>). Mattiske Consulting (2008) describe the vegetation of the application area as: Open forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> , <i>Agonis flexuosa</i> over <i>Taxandria parviceps</i> , <i>Pteridium esculentum</i> , <i>Macrozamia reidleyi</i> and a variety of native shrubs and perennial herbs.	TM and A Pesce Pty Ltd have applied to clear up to 0.6 hectares of native vegetation for the purpose of sand mining. Clearing is proposed to be undertaken mechanically with a lowered blade.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994). To Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).	Much of the vegetation in the application area appears to have been adversely impacted by historic mining operations (GIS Database).

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 area is located approximately 10 kilometres north-north east of Pemberton within the Warren Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database).

According to Shepherd (2007) there is approximately 81 percent of the pre-European vegetation remaining in the Warren bioregion. Two Beard vegetation associations are located within the application area (GIS Database). Both are well represented within the bioregion, retaining more than 80 percent of their pre-European vegetation (Shepherd, 2007). Therefore, it is likely the region has retained much of its biodiversity.

The Department of Environment and Conservation have stated that the mining lease is within a diverse ecotype zone (TM and A Pesce Pty Ltd, 2008). An ecotype zone is defined as a population of any organisms which has become specially adapted to certain environmental conditions (Macquarie Dictionary, 2005). As such, it is likely the local area supports a relatively high level of biodiversity.

Based on the above, the proposed clearing may be at variance to this Principle.

A total of 43 native taxa (species, subspecies and varieties) from 25 families, 37 genera and 43 species were recorded within the application area (Mattiske Consulting, 2008). The assessing officer believes this to be a medium level of biodiversity.

No weeds were recorded within the application area (Mattiske Consulting, 2008). The introduction of weeds may have a detrimental effect on the current and future biodiversity of the application area. Should the permit be granted it is recommended that a condition be placed on the permit for the purpose of weed management.

The introduction and spread of *Phytophthora dieback* into the application area could potentially harm the biodiversity of the local area, and the future biodiversity of the application area. Given this, should the permit be granted it is recommended that a condition be placed on the permit for the purpose of dieback management.

No Declared Rare Flora species pursuant to Subsection 2 of Section 23F of the *Wildlife Conservation Act 1950* [WA] and listed by the Department of Environment and Conservation were located in the application area (Mattiske Consulting, 2008).

No Endangered or Vulnerable plant taxa, pursuant to Section 179 of the *Environment Protection and Biodiversity Conservation Act 1999* [Commonwealth] were located in the application area (Mattiske Consulting, 2008).

No Priority Flora taxa as defined by the Department of Environment and Conservation were located in the application area (Mattiske Consulting, 2008).

Fauna diversity of the application area is likely to be similar to if not slightly diminished in comparison to the local area. This postulation is due to the impact of historic mining activities resulting in the removal of many large habitat trees and undergrowth.

As much of the application area has suffered disturbance from previous mining activities it is likely the biodiversity values of the application area would have been diminished.

Methodology Macquarie Dictionary (2005)
Mattiske (2008)
Shepherd (2007)
TM and A Pesce Pty Ltd (2008)
GIS Database:
- IBRA WA (Regions Sub-regions)

(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**

A search of the Department of Environment and Conservation's Naturemap Database revealed four fauna species that are listed as Schedule 1 ('Fauna that is rare or is likely to become extinct' under the *Wildlife Conservation (Specially Protected Fauna) Notice 2010*) which may occur within the application area (DEC, 2007 - 2010):

- Red Tailed Black Cockatoo (*Calyptorhynchus banksii subsp. naso*);
- Brush-tailed Phascogale (*Phascogale tapoatafa subsp. ssp*);
- Western Ringtail Possum (*Pseudocheirus occidentalis*); and
- Quokka (*Setonix brachyurus*).

Upon viewing aerial imagery of the application area it is evident that there is a high level of intact vegetation in the vicinity (GIS Database). Given the relatively small size (0.6 hectares) of the proposed clearing, it is unlikely the vegetation represents a significant habitat for fauna indigenous to Western Australia.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology DEC (2007 - 2010)
GIS Database:
- Manjimup 50cm Orthomosaic 2007

(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**

Mattiske Consulting (2008) conducted a Declared Rare and Priority Flora survey over the application area in April 2008 (Mattiske Consulting, 2008).

No Declared Rare Flora species pursuant to Subsection 2 of Section 23F of the *Wildlife Conservation Act 1950* [WA] and listed by the Department of Environment and Conservation were located in the application area (Mattiske Consulting, 2008).

No Endangered or Vulnerable plant taxa, pursuant to Section 179 of the *Environment Protection and Biodiversity Conservation Act 1999* [Commonwealth] were located in the application area (Mattiske Consulting, 2008).

No Priority Flora taxa as defined by the Department of Environment and Conservation were located in the application area (Mattiske Consulting, 2008).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Mattiske Consulting (2008)

(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 no known Threatened Ecological Communities (TEC's) in the vicinity of the application area (GIS Database). The nearest known TEC is located approximately 30 kilometres west of the application area (GIS Database).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Database:
- Threatened Ecological Sites

(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 area is located within the Warren Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database).

Shepherd (2007) report that approximately 81% of the pre-European vegetation still exists in the Warren Bioregion. The vegetation of the application area is broadly mapped as Beard vegetation associations 3: medium forest; jarrah-marri; and 1144: Tall forest; karri & marri (*Corymbia calophylla*) (GIS Database, Shepherd, 2007). The table below outlines the pre-European and current extent of vegetation within these regions.

The application area falls within the Shire of Manjimup. The Shire of Manjimup is within the Intensive Land Use Zone of the south-west of Western Australia which has been extensively cleared for agriculture. However, approximately 85.4% of its pre-European vegetation extent remains within the Shire (Shepherd, 2007). This places the Shire at 'Least Concern' according to the Bioregional Conservation Status of Ecological Vegetation Classes' (Department of Natural Resources and Environment, 2002).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	% of Pre-European area in IUCN Class I-IV Reserves (and current %)
IBRA Bioregion - Warren	252,196	204,296	~81	Least concern	~40 (~49.2)

Local Government Authority – Manjimup	697,360	595,562	~85.4	Least concern	~52.2 (~59)
Beard vegetation association - State					
3	2,661,197	1,863,967	~70	Least concern	~18.5 (~26.2)
1144	160,315	131,412	~82	Least concern	~34.4 (~41.9)
Beard vegetation association - Warren Bioregion					
3	252,196	204,296	~81	Least concern	~40 (~49.2)
1144	159,668	131,169	~82.2	Least concern	~34.5 (~41.9)

* Shepherd et al. (2007)

** Department of Natural Resources and Environment (2002)

Locally, some of the surrounding areas have been cleared for agriculture and associated infrastructure. However, the application area is not considered to be a significant remnant of native vegetation within an extensively cleared area.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Department of Natural Resources and Environment (2002)
Shepherd (2007)
GIS Database:
- IBRA WA (Regions-Sub-regions)
- 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 not at variance to this Principle

There are no watercourses or wetlands within the application area (GIS database).

The vegetation of the application area, as described by Mattiske Consulting (2008), is not classed as riparian vegetation.

Based on the above, the proposed clearing is not at variance to this Principle.

Methodology Mattiske Consulting (2008)
GIS database:
- 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 not likely to be at variance to this Principle

The proposed clearing is not likely to cause appreciable land degradation for the following reasons:

- The application area is surrounded by tall vegetation reducing wind speeds at ground level. This coupled with the relatively small area of proposed clearing will reduce the likelihood of wind erosion in the application area;
- The application area is composed of coarse sandy soils (Mattiske Consulting, 2008) that are not generally susceptible to water erosion;
- High rainfall (~1011 millimetres per annum) (Mattiske Consulting, 2008) allows vegetation to regenerate relatively successfully; and
- Photos provided by Mattiske Consulting (2008) show vegetation regenerating in historically mined areas and little erosion.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Mattiske Consulting (2008)

(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 application area occurs within the Donnelly State Forest which totals approximately 8,919 hectares (GIS Database). There has been significant consultation between the proponent and the Department of Environment and Conservation during the pegging of the mining lease area (TM and A Pesce Pty Ltd, 2008). The current lease area and subsequent application area totals approximately 0.6 hectares and is confined to areas that have already been subject to mining activities. For this reason it is unlikely that the proposed clearing will impact on the environmental values of the Donnelly State Forest.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology TM and A Pesce Pty Ltd (2008)
GIS Database:
- DEC 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 application area occurs within Zone D of the Warren River Water Reserve (GIS Database). Correspondence from the Department of Water (2010) on 13/4/2010 did not raise any issues with the proposed clearing (DoW, 2010). Previous advice received from the Department of Water (DoW, 2008) states that clearing permits are generally granted in Zone D, as long as more than 10% of the land in question remains uncleared. Given that much of the surrounding landscape is forested the greater than 10 % limit can be adhered to.

Furthermore, the proposed clearing is not likely to cause deterioration in the quality of surface or underground water for the following reasons:

- there are no permanent watercourses or wetlands within the application area (GIS Database); and
- the application area is relatively small totalling 0.6 hectares.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology DoW (2008)
DoW (2010)
GIS databases:
- Hydrography, linear
- Public Drinking Water Source Areas

(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 Kalgan River is located approximately 250 metres south-west of the application area (GIS Database). Water is likely to move from the application area towards this watercourse during rainfall events (GIS Database).

However, due to the course sandy nature of the soil and the small size (0.6 hectares) of the proposed clearing it is unlikely there will be an incremental rise in the frequency or duration of flooding of the Kalgan River.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS databases:
- Hydrography, linear
- Topographic Contours, Statewide

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

The clearing permit application was advertised on 22 March 2010 by the Department of Mines and Petroleum, inviting submissions from the public. Two submissions were received in relation to this application regarding aboriginal heritage issues and heavy vehicle movement. These issues have been addressed below.

There is one native title claim over the application area; WC98/063. This claim has been registered with the Native Title Tribunal on behalf of the claimant group (GIS Database). However, the tenement has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act, 1993*.

There is one known Aboriginal Sites of Significance located within the clearing permit application area (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

A specific search for Aboriginal Sites of Significance was conducted in October 2007 with representatives from the native title claimant group. No Sites were discovered within the application area (TM and A Pesce Pty Ltd, 2008).

The applicant is advised to confer with its local Shire with respect to the need to comply as relevant with all requirements relating to its Town Planning Scheme, local laws and legislation relating to the movements of heavy vehicles and the repair of the road damage resultant from the use of those vehicles.

It is the proponent's responsibility to liaise with the Department of Environment and Conservation and the Department of Water to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

Methodology TM and A Pesce Pty Ltd (2008)
GIS Database:
-Aboriginal Sites of Significance
-Native Title Claims

4. Assessor's comments

Comment

The proposal has been assessed against the Clearing Principles, and the proposed clearing may be at variance to Principle (a) and is not likely to be at variance to Principles (b), (c), (d), (e), (g), (h), (i) and (j) and is not at variance to Principle (f).

Should the permit be granted, it is recommended that conditions be imposed on the permit for the purposes of weed management, dieback management, record keeping and permit reporting.

5. References

DEC (2007 –2010) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au>.

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.

DoW (2008). Public Drinking Water Source Area (PDWSA) Advice. Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Mines and Petroleum (DMP). Department of Water, Western Australia.

DoW (2010). Advice to the assessing officer regarding clearing permit application CPS 3621/1.

Keighery, B.J. (1994). Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Macquarie Dictionary (2005). Macquarie Dictionary Fourth Edition. Published by the Macquarie Library Pty Ltd, Macquarie University, NSW 2109 Australia.

Mattiske Consulting (2008). Flora and Vegetation Survey of the Proposed Expansion Area for the Manjimup Cement Sand Supply. Unpublished report prepared for Origin Energy Limited

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.

TM and A Pesce Pty Ltd (2008). Application for Mining Lease 70/1173 Situated on State Forest 36 Channybearup Road, West Pemberton. Unpublished report.

6. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government.
CALM	Department of Conservation and Land Management, Western Australia.
DAFWA	Department of Agriculture and Food, Western Australia.
DA	Department of Agriculture, Western Australia.
DEC	Department of Environment and Conservation
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DoE), Western Australia.
DIA	Department of Indigenous Affairs
DLI	Department of Land Information, Western Australia.
DMP	Department of Mines and Petroleum, Western Australia.
DoE	Department of Environment, Western Australia.
DoIR	Department of Industry and Resources, Western Australia.
DOLA	Department of Land Administration, Western Australia.
DoW	Department of Water
EP Act	Environment Protection Act 1986, Western Australia.
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System.
IBRA	Interim Biogeographic Regionalisation for Australia.
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
RIWI	Rights in Water and Irrigation Act 1914, Western Australia.
s.17	Section 17 of the Environment Protection Act 1986, Western Australia.
TECs	Threatened Ecological Communities.

Definitions:

{Atkins, K (2005). *Declared rare and priority flora list for Western Australia, 22 February 2005. Department of Conservation and Land Management, Como, Western Australia*} :-

P1	Priority One - Poorly Known taxa: taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
P2	Priority Two - Poorly Known taxa: taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
P3	Priority Three - Poorly Known taxa: taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.
P4	Priority Four – Rare taxa: taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.
R	Declared Rare Flora – Extant taxa (= Threatened Flora = Endangered + Vulnerable): taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.
X	Declared Rare Flora - Presumed Extinct taxa: taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

{Wildlife Conservation (Specially Protected Fauna) Notice 2005} [Wildlife Conservation Act 1950] :-

Schedule 1	Schedule 1 – Fauna that is rare or likely to become extinct: being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.
Schedule 2	Schedule 2 – Fauna that is presumed to be extinct: being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.
Schedule 3	Schedule 3 – Birds protected under an international agreement: being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.
Schedule 4	Schedule 4 – Other specially protected fauna: being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

{CALM (2005). *Priority Codes for Fauna*. Department of Conservation and Land Management, Como, Western Australia} :-

- P1** **Priority One: Taxa with few, poorly known populations on threatened lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P2** **Priority Two: Taxa with few, poorly known populations on conservation lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P3** **Priority Three: Taxa with several, poorly known populations, some on conservation lands:** Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P4** **Priority Four: Taxa in need of monitoring:** Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.
- P5** **Priority Five: Taxa in need of monitoring:** Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

Categories of threatened species (*Environment Protection and Biodiversity Conservation Act 1999*)

- EX** **Extinct:** A native species for which there is no reasonable doubt that the last member of the species has died.
- EX(W)** **Extinct in the wild:** A native species which:
(a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or
(b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
- CR** **Critically Endangered:** A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
- EN** **Endangered:** A native species which:
(a) is not critically endangered; and
(b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
- VU** **Vulnerable:** A native species which:
(a) is not critically endangered or endangered; and
(b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
- CD** **Conservation Dependent:** A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.