



1. Application details

1.1. Permit application details

Permit application No.: 2330/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Mattiske Consulting Pty Ltd on Behalf of BHP Billiton

1.3. Property details

Property: LOT 100 ON PLAN 212288 (FEYSVILLE 6431)
Local Government Area: City Of Kalgoorlie-Boulder
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4.563		Mechanical Removal	Building or Structure

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 9: Medium woodland; coral gum (Eucalyptus torquata) and goldfields blackbutt (E.souffii).	The applied area of 4.36ha is located within Lot 100 on plan 212288. The purpose for the clearing is for expansion of the car park and construction of a lay-down area near the nickel smelter.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The condition of the native vegetation under application was sourced from the Mattiske flora and fauna survey (2007). The vegetation was considered to be in overall very good condition.
Beard vegetation association 1294: Medium woodland; coral gum (Shepherd 2006).	The proposed clearing area consists of vegetation in good to very good condition, consisting of Eucalypt woodlands over a range of shrubs and spinifex. The dominant tree species Eucalyptus lesouefii, E. trichopoda and E. griffithsii. The dominant shrubs include Westringia rigida, Melaleuca sheathiana, Acacia erinacea, Scaevola spinescens, Alyxia Buxifolia, Santalum acuminatum, Halgania andromedifolia and Exocarpus aphyllus (Mattiske 2007).		

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

A total of 37 vascular plants were recorded within the applied area. The applied area is dominated by a series of Eucalypt woodlands over a range of shrubs and spinifex. The dominant tree species are Eucalyptus lesouefii, E. trichopoda and E. griffithsii. The dominant shrubs include Westringia rigida, Melaleuca sheathiana, Acacia erinacea, Scaevola spinescens, Alyxia Buxifolia, Santalum acuminatum, Halgania andromedifolia and Exocarpus aphyllus (Mattiske 2007). The applied area is considered to be in overall very good condition and the survey (Mattiske 2007) did not identify any significant flora species.

There is no habitat within the applied area that is considered unusual or different from the wider region.

Given the small area applied to be cleared, it is not considered likely that the area under application comprises of a high level of biological diversity.

Methodology Reference:
- Mattiske (2007)

(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 total of 108 bird species, 28 mammal species (including nine species of bat), five frog species and 96 species of reptile have the potential to occur in the local area. Several animals of significance could occur within the local area, including two pythons (the woma and the south west carpet python) and the greater long eared bat (Mattiske 2007).

It is considered unlikely that there are hollows within the applied area and there is minimal ground cover for ground dwelling species.

There is no habitat within the proposed area to be cleared that is considered unusual or different from the wider region. The proximity to the car park and smelter would deter many sensitive animals as a result of regular humans and industrial activities? (Mattiske 2007).

Therefore, it is not considered likely that the vegetation under application comprises the whole or part of, or is necessary for the maintenance of a significant habitat for fauna indigenous to Western Australia.

Methodology Reference:
- Mattiske (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

A biological survey conducted by Mattiske Consulting (2007) did not identify any Declared Rare Flora (DRF) within the applied area. There are also no DRF mapped on the DEC databases.

Given there were no DRF recorded during the Mattiske survey (2007) it is not considered likely that the applied vegetation includes, or is necessary for the continued existence of rare flora.

Methodology Reference:
- Mattiske (2007)
GIS Database:
- SAC Biodatasets 13/4/08

(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 records of Threatened Ecological Communities (TEC) in the local area (5km radius). The closest TEC is identified as Species Community Type (SPC) 71- Russel Range mixed thicket, located approximately 336km south east of the applied area. SPC 71 occurs within a different soil type and vegetation association than the area under application.

The Mattiske biological survey (2008) identified the vegetation under application as Eucalypt woodlands over a range of shrubs and spinifex.

Given the distance to the nearest TEC, and the vegetation on site being identified as Eucalyptus woodlands the vegetation applied to be cleared is not considered likely to comprise the whole or part of, or be necessary for the maintenance of a Threatened Ecological Community.

Methodology Reference:
- Mattiske (2008)
GIS Database:
- SAC Bio Datasets 130308

(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 within the area under application is identified as a component of Beard vegetation association 9, which has a current representation of 99.7% (Shepherd 2006).

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents the clearance of ecological communities with an extent below 30% of that present Pre-European settlement (Commonwealth of Australia 2001).

Given the current representation level of Beard vegetation association 9 and small area (4.36ha) applied to be cleared, it is not considered likely that the vegetation under application is significant as a remnant in an area that has been extensively cleared.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	In secure tenure (%)
IBRA Bioregions				
Coolgardie*	12,917,718	12,719,084	98.5	2.0
Beard Vegetation type: 9*	240,509	239,898	99.7	1.3
Beard Vegetation type: 1294*	6,295	6,295	100	1.8
Shepherd 2006*				

Methodology

References:

- Shepherd (2006)

GIS Databases:

- Interim Biogeographic Regions of Australia EA 18/10/00

- SAC Bio Datasets 14/03/08

(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 nearest wetland is Brown Lake located approximately 1.5km west of the area under application and there are no watercourses located within the local area (5km radius). The Mattiske biological survey (2007) did not identify any wetland dependant vegetation within the applied area.

Given the distance to the nearest watercourse or wetland, and that no wetland dependant vegetation was identified on site it is not considered likely that the vegetation under application is growing in, or in association with, an environment associated with a watercourse or wetland.

Methodology

References:

- Mattiske (2007)

GIS Databases:

- Geomorphic wetlands (Mgt Categories)- Swan Coastal Plain DEC

- Hydrography, hierachy - DOE 01/02/04

(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 calcareous loamy soils (Northcote et al 1960) which are considered to have a lower risk of wind erosion than sand-based soils. The area under application receives low annual rainfall and has a low gradient; therefore the risk of water erosion is considered to be low. The area under application also is also mapped as having a low risk of salinity.

Given the low risk of wind erosion, water erosion and salinity it is not considered likely that the clearing as proposed would cause appreciable land degradation.

Methodology

Reference

- Northcote et al (1960-68)

GIS Databases

- Soils, Statewide- DA 11/99

(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 no DEC managed conservation areas within the local (5km radius). The closest DEC managed area is classed as a timber reserve which is located approximately 8.6km east of the applied area.

Given the distance to the nearest conservation reserve, the proposed clearing of the vegetation is not considered likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Methodology GIS databases:

- DEC Managed Lands and Waters - CALM 1/07/05
- System 6 Conservation Reserves - DEP 06/95

(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 under application is not located within a prescribed groundwater area or a Public Drinking Water Source Area. The nearest wetland is located approximately 1.5km to the west of the area under application.

The area under application receives low annual rainfall and has a low gradient. Therefore, the proposed clearing is not considered likely to cause deterioration in surface water quality through water erosion and sedimentation.

The soils within the applied area are mapped as having a low risk of salinity. Therefore, salinity is not likely to cause deterioration in ground water quality as a result of the proposed clearing.

Based on the limited area applied to be cleared, the distance to the nearest wetland and the low risk of salinity and water erosion, the proposed clearing is not considered likely to cause deterioration in the quality of surface water or groundwater.

Methodology GIS Databases:

- Hydrography, linear (hierarchy) - DOE 13/4/05
- RIWI Act, Groundwater Areas - WRC 13/06/00
- Public Drinking Water Source Areas (PDWSA's) - DOE 09/08/05
- Topographic Contours, Statewide- DOLA 12/09/02

(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

There are no surface water features within or adjacent to the area under application. The area receives a low rainfall (300mm per annum) and has a high evaporation rate (2700mm per annum). Therefore the proposed clearing is unlikely to cause or exacerbate the incidence of flooding.

Methodology GIS Databases:

- Rainfall, Mean Annual - BOM 30/09/01
- Evaporation Isopleths - BOM 09/98
- Geodata, Lakes - GA 28/06/02

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

Comments

There are no aboriginal sites of significance within the applied area.

The applied area is zoned rural and is freehold land owned by the Western Mining Corporation Ltd.

Methodology

GIS Databases:

- Aboriginal Sites of Significance- DIA 20/03/03
- Cadastre
- Town Planning Scheme Zones- MFP 08/98

4. Assessor's comments

Comment

The assessable criteria have been addressed and the clearing as proposed is not considered likely to be at variance to any of the clearing Principles.

5. References

- Commonwealth of Australia (2001) National Targets and Objectives for Biodiversity Conservation 2001-2005, AGPS, Canberra.
- Gibson N., Keighery B., Keighery G., Burbidge A. and Lyons M. (1994). A Floristic Survey of the Southern Swan Coastal Plain. Western Australian Department of Conservation and Land Management and the Western Australian Conservation Council.
- 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 (2007) Assessment of Biological Values in proposed Car Park area near the Kalgoorlie Nickel Smelter. Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Shepherd, D.P. (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.

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)



1. Application details

1.1. Permit application details

Permit application No.: 2330/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Mattiske Consulting Pty Ltd on Behalf of BHP Billiton
Postal address: Po Box 437 Kalamunda WA 6076
Contacts: Phone: 9257 1625
Fax: 9257 1640
Email: libby@mattiske.com.au

1.3. Property details

Property: LOT 100 ON PLAN 212288 (FEYSVILLE 6431)
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4.563		Mechanical Removal	Building or Structure

2. Background

2.1. History (including previous clearing permits, compensation paid, caveats on title deeds etc.)

Date	Comments
11 March 2008	No DAFWA or Wetlands Advice required. Assessment due to NVCB Branch on 8 April 2008.
06 March 2008	Received confirmation from Libby on area to be cleared.
06 March 2008	Application accepted. Advertised 10 March 2008.
05 March 2008	Received email from Libby, she is now saying the area is 4.395 and not 3.66 as originally applied for. Sent email asking for confirmation on area.
04 March 2008	Digitised map sent to Libby for confirmation of clearing area. Asked for confirmation asap so we can proceed with her application.
25 February 2008	Email received from GIS people, shape files not in polygon format. Forwarded Email on to Libby, waiting on response.
19 February 2008	Received email with shape files, sent to Milan for de-projecting.
18 February 2008	Email sent to Mattiske Consulting outlining clearing areas protocol for shape files.
13 February 2008	Received receipt for payment from Finance. Receipt number 039864
13 February 2008	Nicky Smyth(NVCB) phoned Mattiske Consulting asking for shape files to be sent. Libby advised she would have them to me by the end of the week.
06 February 2008	Cheque recieved from (DOIR) for \$100.00. Cheque Number 181333. Sent to Alan Coombes Finance(Atrium). Waiting on receipt.
31 January 2008	Nicky Smyth (NVCB) phone Libby regarding non payment. She sent cheque to DOIR by mistake, she has contacted Patricia Hudgeell from DOIR and cheque has been forwarded.

2.2. Existing environment and information

2.2.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
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2.2.2. Items of interest

Theme
Environmental Impact Assessments

Value
s16 - Section 16 Report

Within meters

3. Permit assessment activities

Date	Activity	Comment	Trim Ref.
31 January 2008	Application received		
06 March 2008	Accepted for assessment		
11 March 2008	Under assessment		
11 March 2008	Under assessment		
11 March 2008	Under assessment		

4. 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**

A total of 37 vascular plants were recorded within the applied area. The applied area is dominated by a series of Eucalypt woodlands over a range of shrubs and spinifex. The dominant tree species are Eucalyptus lesouefii, E. trichopoda and E. griffithsii. The dominant shrubs include Westringia rigida, Melaleuca sheathiana, Acacia erinacea, Scaevola spinescens, Alyxia Buxifolia, Santalum acuminatum, Halgania andromedifolia and Exocarpus aphyllus (Mattiske 2007). The applied area is considered to be in overall very good condition and the survey (Mattiske 2007) did not identify any significant flora species.

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Officer Tim Pavlos

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Therefore, it is not considered likely that the vegetation under application comprises the whole or part of, or is necessary for the maintenance of a significant habitat for fauna indigenous to Western Australia.

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Officer Tim Pavlos

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- Shepherd (2006)
GIS Databases:
- Interim Biogeographic Regions of Australia EA 18/10/00
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Officer Tim Pavlos

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Methodology References:
 - Mattiske (2007)
 GIS Databases:
 - Geomorphic wetlands (Mgt Categories)- Swan Coastal Plain DEC
 - Hydrography, hierarchy - DOE 01/02/04

Officer Tim Pavlos

(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 calcareous loamy soils (Northcote et al 1960) which are considered to have a lower risk of wind erosion than sand-based soils. The area under application receives low annual rainfall and has a low gradient; therefore the risk of water erosion is considered to be low. The area under application also is also mapped as having a low risk of salinity.

Given the low risk of wind erosion, water erosion and salinity it is not considered likely that the clearing as proposed would cause appreciable land degradation.

Methodology Reference
 - Northcote et al (1960-68)
 GIS Databases
 - Soils, Statewide- DA 11/99

Officer Tim Pavlos

(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 no DEC managed conservation areas within the local (5km radius). The closest DEC managed area is classed as a timber reserve which is located approximately 8.6km east of the applied area.

Given the distance to the nearest conservation reserve, the proposed clearing of the vegetation is not considered likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Methodology GIS databases:
 - DEC Managed Lands and Waters - CALM 1/07/05
 - System 6 Conservation Reserves - DEP 06/95

Officer Tim Pavlos

(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 under application is not located within a prescribed groundwater area or a Public Drinking Water Source Area. The nearest wetland is located approximately 1.5km to the west of the area under application.

The area under application receives low annual rainfall and has a low gradient. Therefore, the proposed clearing is not considered likely to cause deterioration in surface water quality through water erosion and sedimentation.

The soils within the applied area are mapped as having a low risk of salinity. Therefore, salinity is not likely to cause deterioration in ground water quality as a result of the proposed clearing.

Based on the limited area applied to be cleared, the distance to the nearest wetland and the low risk of salinity and water erosion, the proposed clearing is not considered likely to cause deterioration in the quality of surface water or groundwater.

Methodology GIS Databases:
 - Hydrography, linear (hierarchy) - DOE 13/4/05
 - RIWI Act, Groundwater Areas - WRC 13/06/00
 - Public Drinking Water Source Areas (PDWSA's) - DOE 09/08/05
 - Topographic Contours, Statewide- DOLA 12/09/02

Officer Tim Pavlos

(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 There are no surface water features within or adjacent to the area under application. The area receives a low rainfall (300mm per annum) and has a high evaporation rate (2700mm per annum). Therefore the proposed clearing is unlikely to cause or exacerbate the incidence of flooding.
Methodology	GIS Databases: - Rainfall, Mean Annual - BOM 30/09/01 - Evaporation Isopleths - BOM 09/98 - Geodata, Lakes - GA 28/06/02
Officer	Tim Pavlos

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

Comments	There are no aboriginal sites of significance within the applied area.
Methodology	The applied area is zoned rural and is freehold land owned by the Western Mining Corporation Ltd. GIS Databases: - Aboriginal Sites of Significance- DIA 20/03/03 - Cadastre - Town Planning Scheme Zones- MFP 08/98
Officer	Tim Pavlos

5. Assessor's recommendations

Comment / recommendation

The assessable criteria have been addressed and the clearing as proposed is not considered likely to be at variance to any of the clearing Principles.

6. References

- Commonwealth of Australia (2001) National Targets and Objectives for Biodiversity Conservation 2001-2005, AGPS, Canberra.
- Gibson N., Keighery B., Keighery G., Burbidge A. and Lyons M. (1994). A Floristic Survey of the Southern Swan Coastal Plain. Western Australian Department of Conservation and Land Management and the Western Australian Conservation Council.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
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- Shepherd, D.P. (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.

