



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

| | |
|-------------------------------|-----------------------------------|
| Purpose Permit number: | CPS 4616/1 |
| Permit Holder: | BHP Billiton Iron Ore Pty Ltd |
| Duration of Permit: | 5 December 2011 – 5 December 2016 |

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

- 1. Purpose for which clearing may be done**
Clearing for the purpose of road construction and associated activities.
- 2. Land on which clearing is to be done**
Great Northern Highway, road reserve, being;
Lot 175 on Plan 219293 (Newman)
Lot 3000 on Plan 50859 (Newman)
Lot 300 on Plan 44340 (Newman)
- 3. Area of Clearing**
The Permit Holder shall not clear more than 10 hectares of native vegetation within the combined areas cross-hatched yellow on attached Plan 4616/1a, Plan 4616/1b and Plan 4616/1c.
- 4. Application**
This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.
- 5. Type of clearing authorised**
This Permit authorises the Permit Holder to clear native vegetation for activities to the extent that the Permit Holder has the power to clear native vegetation for those activities under the *Main Roads Act 1930*, or any other written law.
- 6. Compliance with Assessment Sequence and Management Procedures**
Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

- 7. Avoid, minimise etc clearing**
In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:
 - (a) avoid the clearing of native vegetation;
 - (b) minimise the amount of native vegetation to be cleared; and
 - (c) reduce the impact of clearing on any environmental value.

8. Flora management

- (a) Prior to undertaking any clearing authorised under this Permit, the Permit Holder shall engage a *botanist* to inspect that area for the presence of rare flora listed below:
- (i) Hamersley catapycnon (*Lepidium catapycnon*);
 - (ii) Mountain thryptomene (*Thryptomene wittweri*)
- (b) Where rare flora are identified in relation to condition 8(a) of this Permit, the Permit Holder shall ensure that no clearing occurs within 50 metres of identified rare flora, unless approved by the CEO, and no clearing of identified rare flora occurs unless approved under section 23F(2) of the *Wildlife Conservation Act 1950*.

PART III - RECORD KEEPING AND REPORTING

9. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
- (i) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
 - (ii) the date that the area was cleared; and
 - (iii) the size of the area cleared (in hectares).
- (b) In relation to flora management pursuant to condition 8 of this Permit:
- (i) the location of each rare flora species recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
 - (ii) the species name of each rare flora species identified; and
 - (iii) a copy of the *botanists* flora survey report.

10. Reporting

- (a) The Permit Holder must provide to the CEO on or before 31 July of each year, a written report:
- (i) of records required under condition 9 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 July and 30 June of the preceding year.
- (b) Prior to 25 August 2016, the Permit Holder must provide to the CEO a written report of records required under condition 9 of this Permit where these records have not already been provided under condition 10(a) of this Permit.

DEFINITIONS

The following meanings are given to terms used in this Permit:

botanist means a person with specific training and/or experience in the ecology and taxonomy of Western Australian flora;

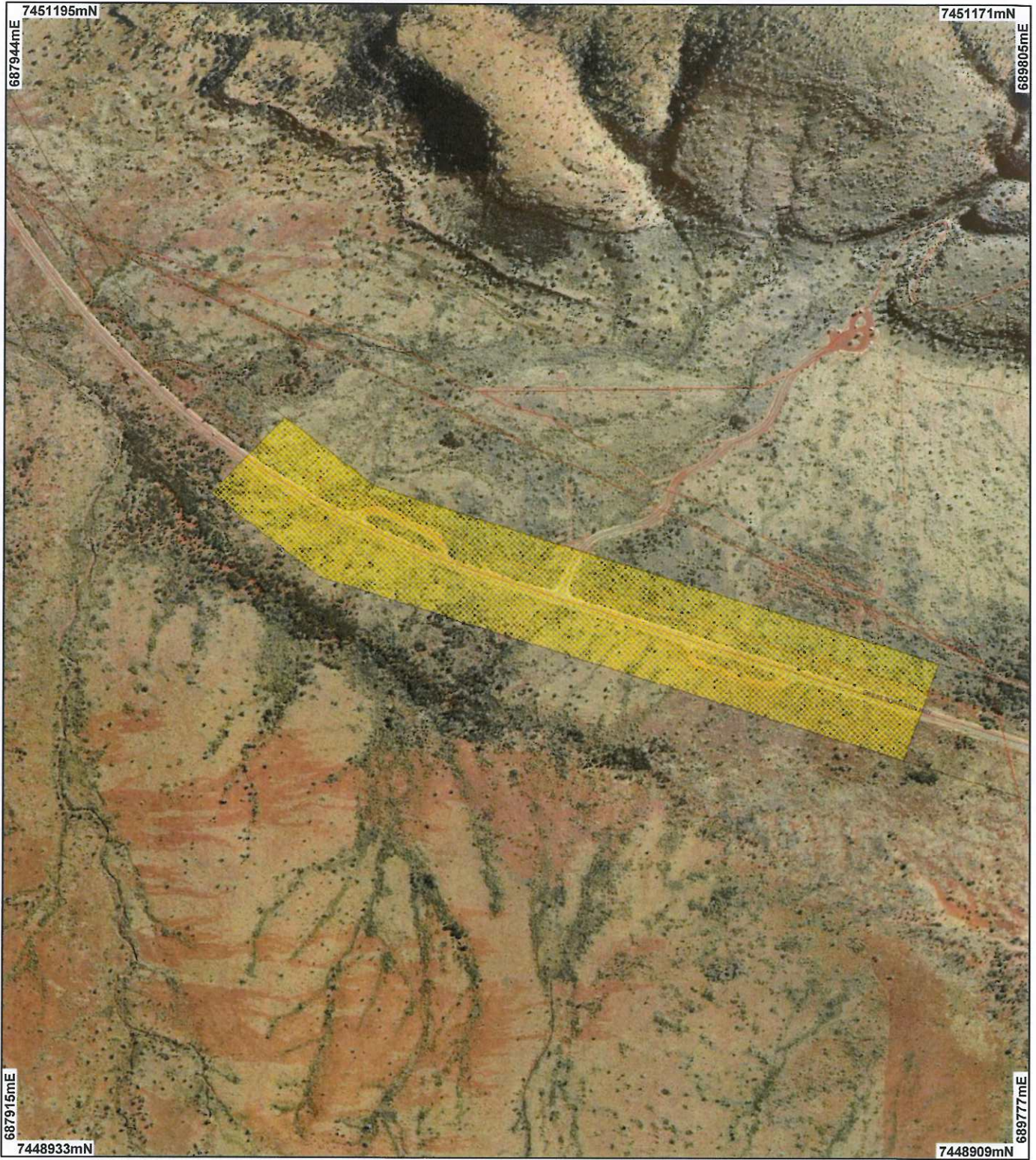


Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH




*Officer delegated under Section 20
of the Environmental Protection Act 1986*

10 November 2011

Plan 4616/1a

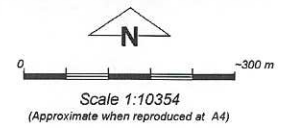


LEGEND

- Clearing Instruments**
-  Areas Approved to Clear
 -  Road Centrelines
 -  Cadastre

Newman 1.4m Orthomosaic -
Landgate 2003

Governor 50cm Orthomosaic -
Landgate 2004



Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

 Date 10/11/11
K Paulkner

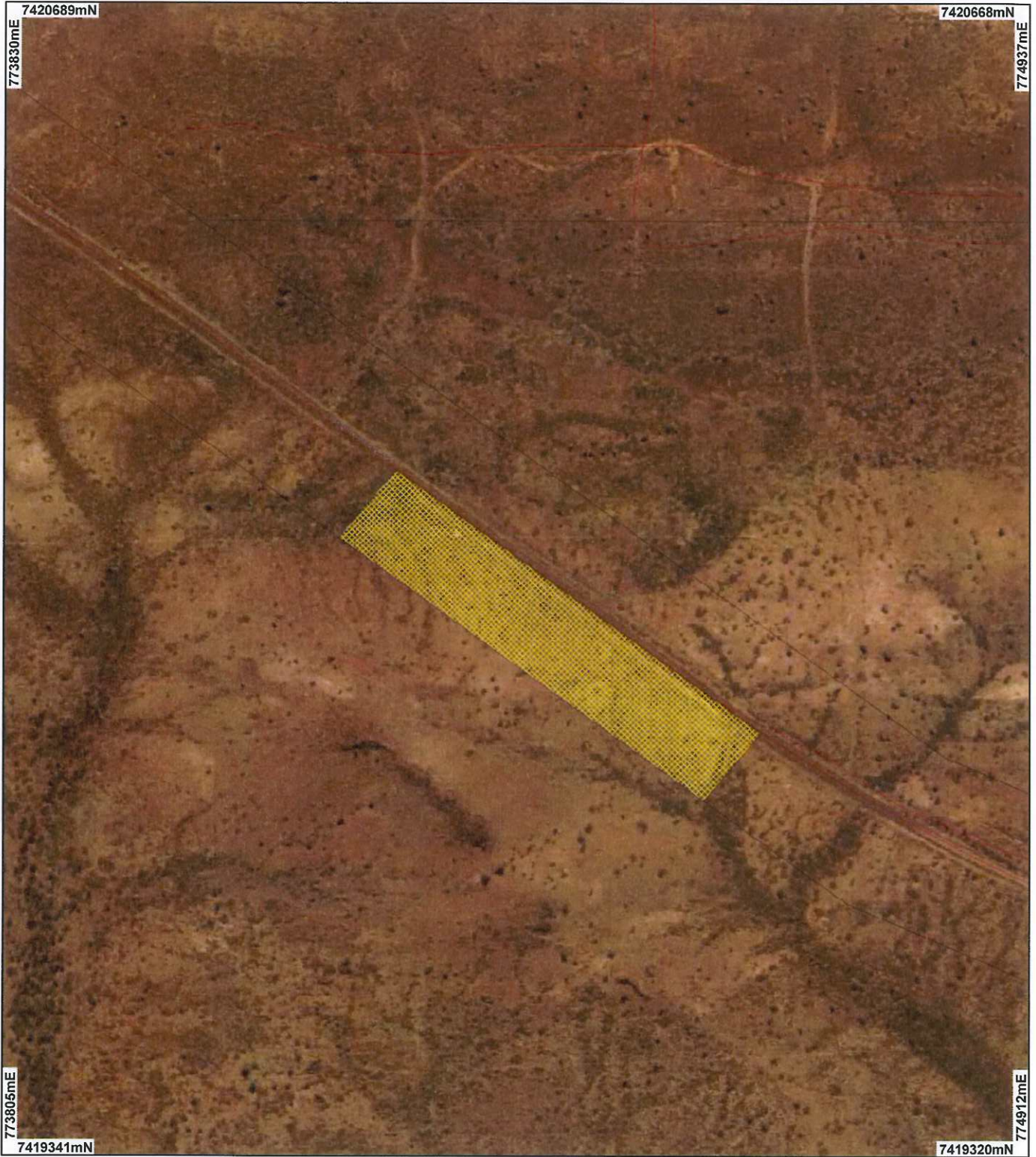
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Plan 4616/1b



LEGEND

- Clearing Instruments**
-  Areas Approved to Clear
 -  Road Centrelines
 -  Cadastre
- Newman 1.4m Orthomosaic - Landgate 2003




0 ————— 150 m

Scale 1:6163
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

 Date 10/2/16
K Faulkner

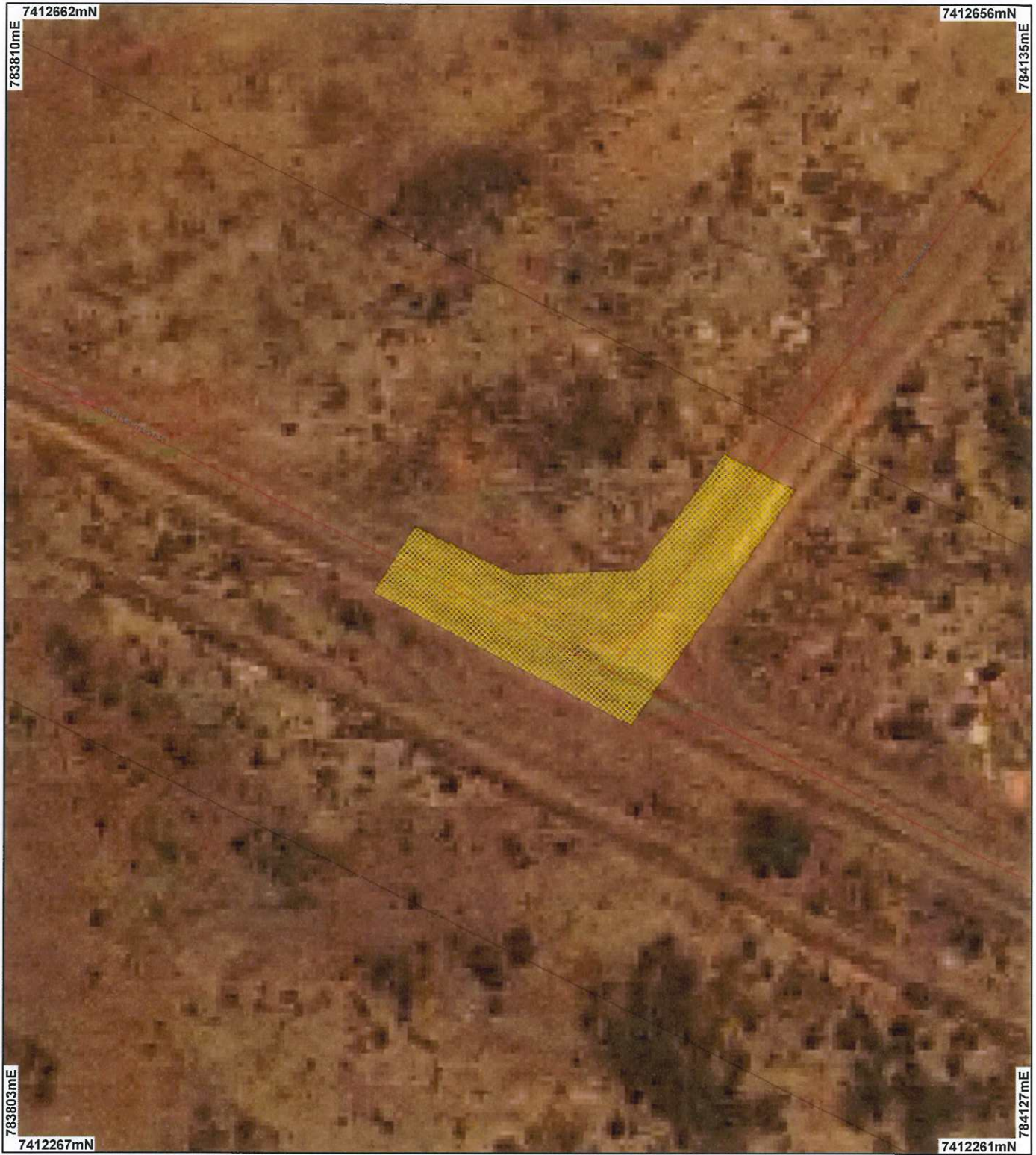
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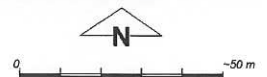
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Plan 4616/1c



LEGEND

- Clearing instruments**
-  Areas Approved to Clear
 -  Road Centrelines
 -  Cadastre
- Newman 1.4m Orthomosaic -
Landgate 2003



Scale 1:1807
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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 Date 10/11/11
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1. Application details

1.1. Permit application details

Permit application No.: 4616/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: BHP Billiton Iron Ore Pty Ltd

1.3. Property details

Property: LOT 175 ON PLAN 219293 (NEWMAN 6753)
LOT 3000 ON PLAN 50859 (NEWMAN 6753)
LOT 300 ON PLAN 44340 (NEWMAN 6753)
Local Government Area: Shire of East Pilbara

1.4. Application

| | | | |
|--------------------|-----------|--------------------|----------------------------------|
| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
| 10 | | Mechanical Removal | Road construction or maintenance |

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 10 November 2011

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 |
|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 18: Low woodland; mulga (Acacia aneura) and | The application is to clear 10ha of vegetation within the Great Northern Highway road reserve. | Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994) | The condition of the vegetation was obtained using aerial imagery within clearing permit application 4616/1 (BHPBIO, 2011). |
| 82: Hummock grasslands, low tree steppe; snappy gum over <i>Triodia wiseana</i> (Shepherd, 2009). | The proposed clearing is to be carried out over three different sites within the road reserve. | To | |
| | The application areas appear to have a historical disturbance from nearby infrastructure activities such as roads, lay -bys, power line poles and tracks associated with them. The vegetation under application is considered to be in a degraded to good (Keighery, 1994) condition. | Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994) | |

3. Assessment of application against clearing principles

Comments

The application is to clear 10 hectares of native vegetation within a 32 hectare footprint over three separate areas of the Great Northern Highway road reserve, for the purpose of road construction and maintenance. Site 1 is located approximately 3.8km south-west of the town site of Newman, site 2 is located approximately 9km north-west of Newman and site 3 is approximately 98km west-north of Newman (BHPBIO, 2011). The distance from site 1 to site 3 is approximately 105 kilometres.

Within the local area (10km radius of each application area) several priority flora species have been recorded. The majority of the priority flora species mapped were within the vicinity of site 3, with most recorded at a distance of 5km or more from the application area. However given the high level of suitable habitat for priority flora species surrounding the application areas, it is unlikely the proposed clearing will impact on priority species.

Within 10km of site 3 a number of Priority Ecological Communities (PECs) have been recorded, the closest being approximately 4.6km west of this application area and is referred to as PEC Coolabah - Lignum Flats: Coolabah and mulga woodland over lignum and tussock grasses on clay plains (Priority 3). The mapped PEC has been recorded within different vegetation and soil types to that recorded in site 3. Given the difference in soil and vegetation complexes from the recorded PEC to the application area, along with distance and disturbance from infrastructure activities within the site, it is unlikely the vegetation within site 3 will comprise of this PEC or will it be necessary of the maintenance of the recorded PEC.

Several fauna species of conservation significance have been recorded within close proximity to the areas under application. However, given that the local area retains approximately 98 per cent vegetation cover, it is considered that the vegetation under application is not significant for fauna species, therefore the application is unlikely to be significant fauna habitat nor impact upon fauna species of conservation significance.

Three Declared Rare Flora (DRF) species have been recorded within a 40km radius of the areas under application. The three species are *Lepidium catapycnon*, *Thryptomene wittweri* and *Pityrodia augustensis*. All three species are listed as DRF under the Wildlife Conservation Act 1950 and vulnerable under the Environmental Protection and Biodiversity Act 1999.

Lepidium catapycnon and *Thryptomene wittweri*, have been recorded within a 10km radius to the application areas and are considered to reside in the same vegetation and soil complexes to the application areas. Given the close proximity of these two DRF species to the application areas, along with the species being mapped within the same vegetation and soil type complexes to the application areas, the application may be at variance to principle c. Flora management practices will assist in mitigating impacts to DRF species.

A preliminary report by Ecological Australia Pty Ltd 2011, identified the three DRF species listed above as potentially occurring within the application areas. The known DRF species within close proximity to the application areas will be the focus of a flora assessment, to determine the likelihood of the species occurring within the application areas based on a species occurrence and habitat assessment (BHPIO, 2011).

A section of the application (site 1) area is within a Threatened Ecological Community (TEC). The mapped TEC is referred to as the Ethel Gorge aquifer stygobiont community. The total clearing within the area of the known TEC is approximately 0.2 of a hectare. The TEC is groundwater dependent and is likely to be adversely impacted by alterations to groundwater and surface water quality.

Given the small amount of vegetation proposed to be cleared within this section of the application (approximately 0.2ha), it is unlikely that the proposed clearing of shallow rooted vegetation will impact upon the ground or surface water, therefore there will be no significant impacts to the known TEC stygobiont community.

The vegetation under application comprises of Beard vegetation association 18 and 82 which are well represented in the bioregion and East Pilbara Shire. The areas surrounding the application sites appear to be extensively vegetated, therefore it is considered that the vegetation under application is not significant as a remnant.

The application has been assessed against the clearing principles and may be at variance to principle (c), and is not likely to be at variance to the remaining clearing principles.

Methodology

References:

BHPBIO (2011)

DEC (2007 -)

Shepherd (2009)

GIS databases:

- SAC Biodatasets – accessed 6 October 11

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

Comments

The applied clearing area falls within the Pilbara RiWI Ground Water Area, however, no groundwater abstraction or dewatering is required for this proposal.

The applicant has been given authorisation from Main Roads to commence work within the Great Northern Highway and Marble Bar Road, road reserves (BHPBIO, 2011).

Site 1 of the application area is within Aboriginal Sites of Significance.

The Shire of East Pilbara have no objection to the application.

Methodology

References:

BHPBIO (2011)

GIS Databases:

- Aboriginal Sites of Significance

4. References

- BHPBIO (2011) Road Construction and Associated Activities – Great Northern Highway, road reserve. Application to Clear Native Vegetation (Purpose Permit). BHP Billiton Iron Ore, Perth, Western Australia. DEC refA431786.
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed 6 October 2011
- 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. (2009) 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.

5. 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) |