



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 4327/1
Permit Holder:	Hamersley Iron Pty Ltd
Duration of Permit:	27 June 2011– 27 June 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 upgrading road intersections.

2. Land on which clearing is to be done

LOT 181 ON PLAN 219298
LOT 179 ON PLAN 219296

3. Area of Clearing

The Permit Holder must not clear more than 1.5 hectares of native vegetation within the area cross-hatched yellow on attached Plan 4327/1a, Plan 4327/1b and Plan 4327/1c.

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 *Land Administration Act 1997* 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:

- avoid the clearing of native vegetation;
- minimise the amount of native vegetation to be cleared; and
- reduce the impact of clearing on any environmental value.

8. Vegetation management

The Permit Holder shall not clear native vegetation within 30 metres of the *riparian vegetation* of any *watercourse* or *wetland* within and/or adjacent to the area cross-hatched yellow on Plan 4327/1a, Plan 4327/1b and Plan 4327/1c.

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: In relation to the clearing of native vegetation authorised under this Permit:

- (a) the species composition, structure and density of the cleared area;
- (b) 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;
- (c) the date that the area was cleared; and
- (d) the size of the area cleared (in hectares).

10. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June 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 January and 31 December of the preceding year.
- (b) Prior to 27 March 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:

riparian vegetation has the meaning given to it in Regulation 3 of the Environmental Protection (Clearing of Native Vegetation) Regulations 2004;

watercourse has the meaning given to it in section 3 of the *Rights in Water and Irrigation Act 1914*; Western Australian flora;

wetland/s means an area of seasonally, intermittently or permanently waterlogged or inundated land, whether natural or otherwise, and includes a lake, swamp, marsh, spring, dampland, tidal flat or estuary.

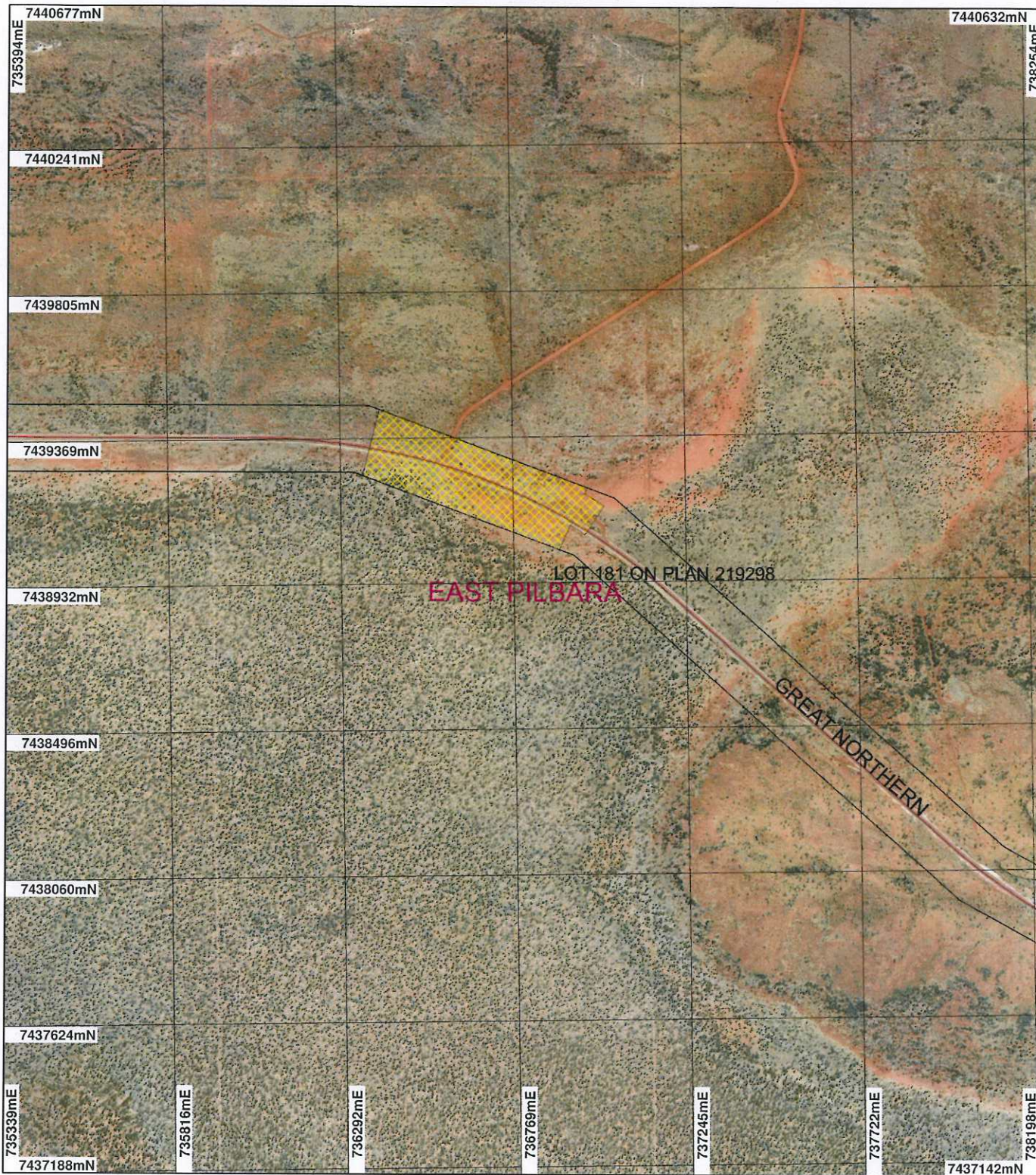


Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

2 June 2011

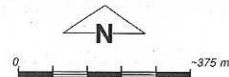
Plan 4327/1a



LEGEND

- Cadastre
- Clearing Instruments
- Areas Approved to Clear
- Local Government Authorities

- Road Centrelines
- Ophthalmia 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 2/6/11
K. Faulkner

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

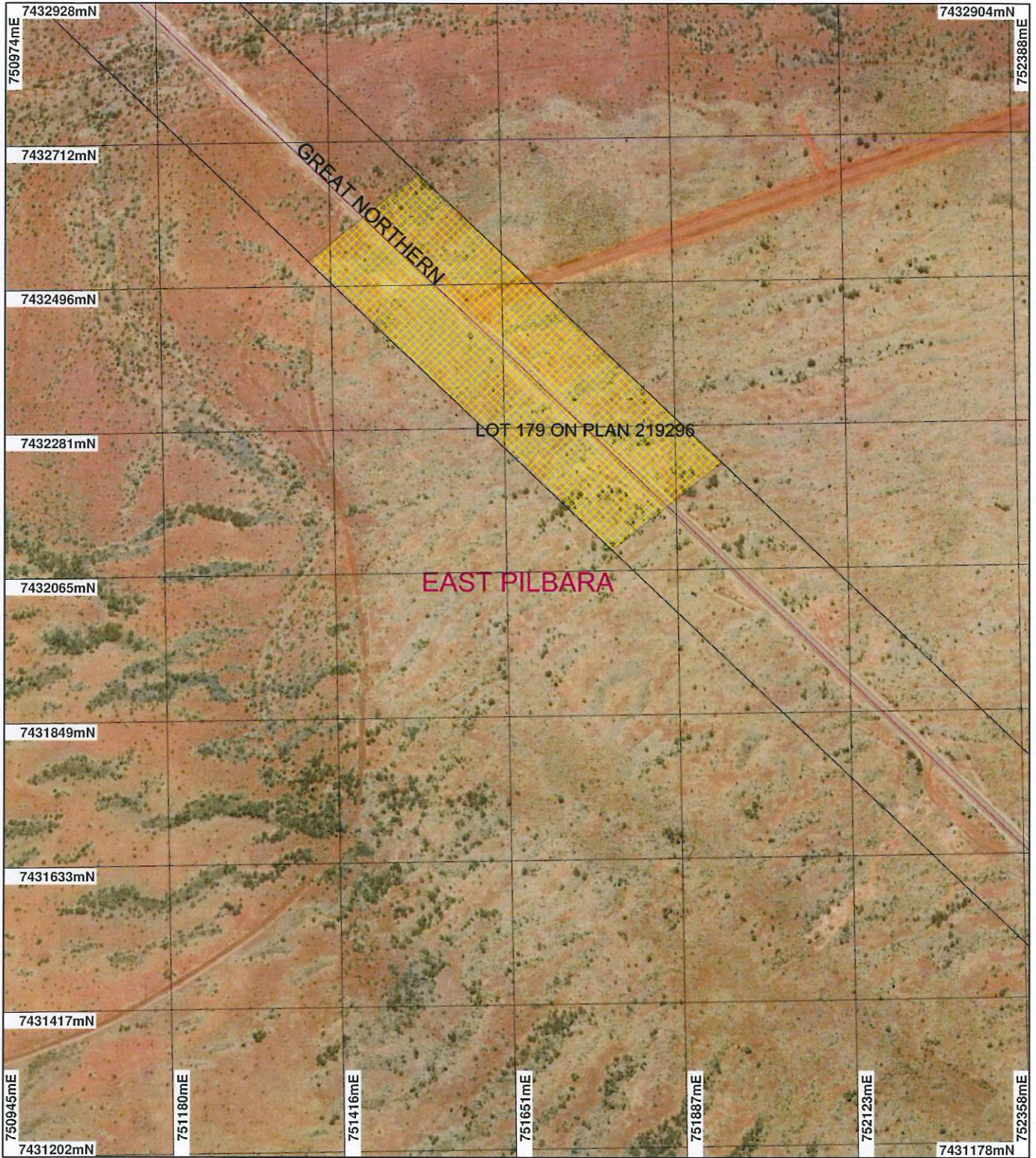
Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



Department of Environment and Conservation

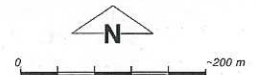
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Plan 4327/1b



LEGEND

- | | |
|------------------------------|------------------------------------------------------|
| Clearing Instruments | <input type="checkbox"/> Cadastre |
| Areas Approved to Clear | <input type="checkbox"/> Ophthalmia 50cm |
| Local Government Authorities | <input type="checkbox"/> Orthomosaic - Landgate 2004 |
| Road Centrelines | |



Scale 1:7874
(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 2/6/11
K. Faulkner

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

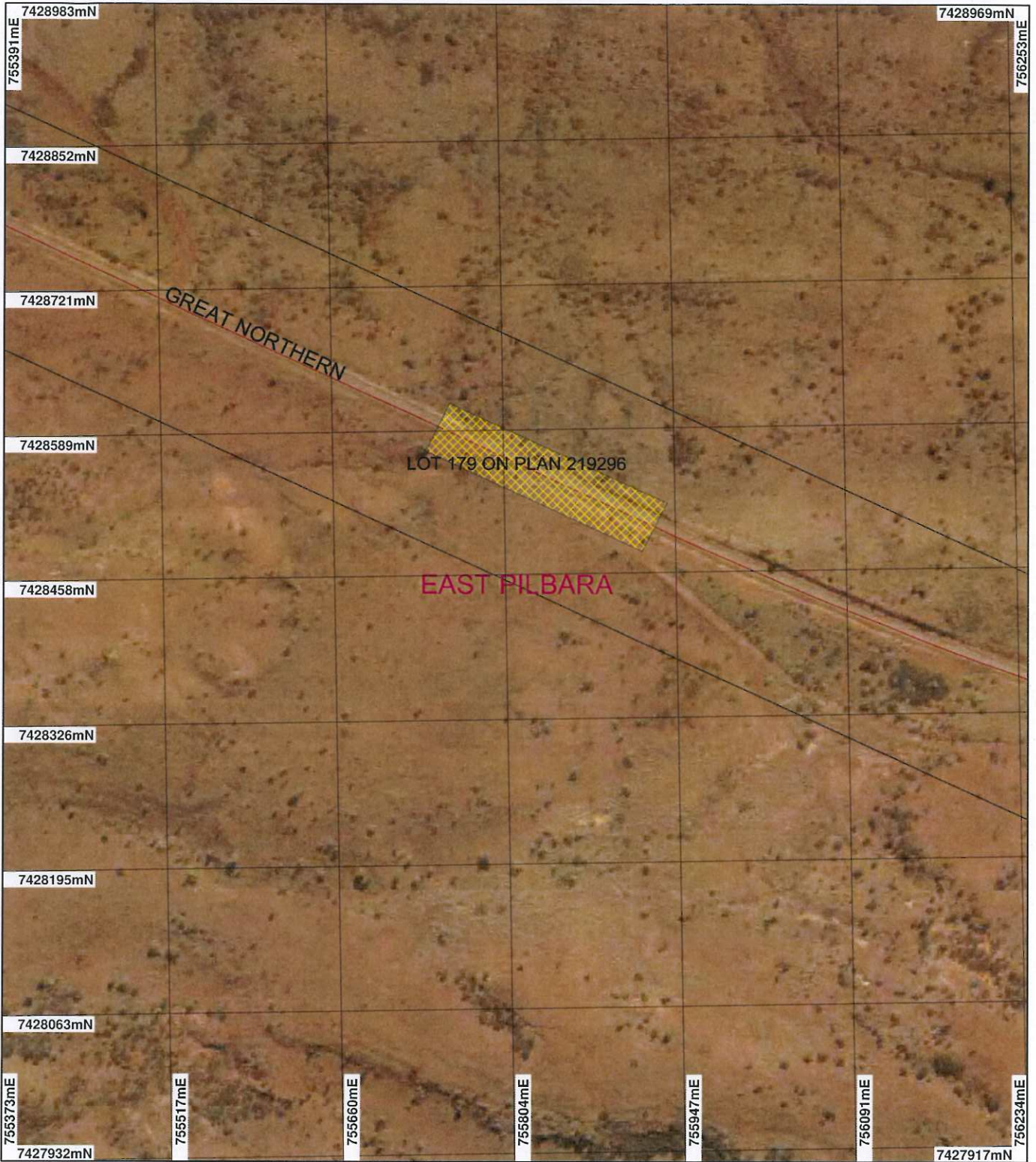
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
Plan 4237/1c



LEGEND

- Local Government Authorities
- Road Centrelines
- Cadastre Clearing Instruments
- Areas Approved to Clear

Ophthalmia 50cm Orthomosaic - Landgate 2004
 Newman 1.4m Orthomosaic - Landgate 2003

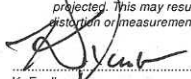


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Geocentric Datum Australia 1994


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

 Date 2/6/11

K. Faulkner

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

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1. Application details

1.1. Permit application details

Permit application No.: 4327/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Hamersley Iron Pty Ltd

1.3. Property details

Property: LOT 181 ON PLAN 219298 (NEWMAN 6753)
LOT 179 ON PLAN 219296 (NEWMAN 6753)

Local Government Area: Shire of East Pilbara
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 2 June 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
Rhodes Ridge Access Road intersection (western application area): Beard Vegetation Association 175 - Short bunch grassland - savanna/grass plain (Pilbara).	The proposed clearing consists of 1.5 hectares over a 25.6 hectare area across three intersections between Great Northern Highway and Rhodes Ridge Access Road, Eagle Rock Falls Access Track and Hope Downs 4 Mine Access Road, Newman.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994)	Vegetation condition was determined through aerial imagery, flora surveys (Mattiske Consulting, 2010 and Rio Tinto, 2011) and photographs of the application area (Rio Tinto, 2011).
Eagle Rock Falls Access Track intersection (central application area): Beard Vegetation Association 18 - Low woodland; mulga (Acacia aneura)	The proposed works include clearing and topsoiling, minor earthworks, roadworks and sealing in order to upgrade the three intersections (Rio Tinto, 2011).	to Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994)	
Hope Downs 4 Mine Access Road (eastern application area): Beard Vegetation Association 82 - Hummock grasslands, low tree steppe; snappy gum over <i>Triodia wiseana</i> (Shepherd, 2009)	The dominant vegetation communities are identified as <i>Acacia aneura</i> high shrubland over <i>Eremophila fraseri</i> shrubland over <i>Tridia pungens</i> very open hummock grasslands over <i>Chrysopogon fallax</i> , <i>Eriachne benthamii</i> , <i>Themeda triandra</i> , <i>Aristida latifolia</i> open tussock grassland (Rio Tinto, 2011) and hummock grassland communities on slopes and ranges in the Hope Downs 4 area (Mattiske Consulting, 2010). Vegetation under application is exposed to disturbance associated with the existing roads, weed invasion, grazing and historical clearing (Rio Tinto, 2011) and is considered to range from very good to degraded (Keighery, 1994) condition. The surrounding vegetation is considered likely to be in excellent (Keighery, 1994) condition and accurately reflects the vegetation within the clearing areas (Mattiske Consulting, 2010).		

3. Assessment of application against clearing principles

Comments

The proposal is to clear up to a total 1.5 hectares of native vegetation in very good to degraded (Keighery, 1994) condition within three areas within the Great Northern Highway road reserve for the purpose of upgrading three existing intersections.

The local area is approximately 95% vegetated and the vegetation types under application are well represented in the surrounding excellent (Keighery, 1994) vegetation.

The application areas do not represent rare features of the of the Hamersley subregion of the Pilbara bioregion (Mattiske Consulting, 2010).

No declared rare flora (DRF) have been identified within the application areas. The DRF *Lepidium catapycnon* is known to occur within 2 kilometres of the application areas, on the same vegetation and soil types as the vegetation under application, however suitably timed surveys of the application areas did not identify this species (Mattiske, 2010; Rio Tinto, 2011). It is unlikely that this species occurs within the application areas.

Seven populations of the Priority 3 flora species *Rhagodia* sp. Hamersley (M. Trudgen 17794) have been recorded throughout the Eagle Rock Falls and Rhodes Ridge access road application areas (Rio Tinto, 2011). In addition, the application areas may provide suitable habitat for other priority species including *Goodenia nuda* (P4), *Aristida lazardis* (P2), *Aristida jerichoensis* var. *subspinulifera* (P1) and *Themeda* sp. Hamersley Station (ME Trudgen 11431) (P3) (Rio Tinto, 2011). These species may have been overlooked during site visit due to dry conditions at the time of the survey (Rio Tinto, 2011). The proposed clearing is considered unlikely to impact on the conservation status of these species.

The vegetation under application is likely to be exposed to higher disturbance factors than the surrounding vegetation due to historic clearing, grazing and edge effects associated with the existing road intersections. One western pebble-mound mouse (*Pseudomys chapmani*) (P4) mound was observed in the application area during a site visit (Rio Tinto, 2011), however the vegetation under application is not considered to be significant as fauna habitat in a local or regional context.

The application areas are in close proximity to minor watercourses, particularly the Rhodes Ridge Access Road and Hope Downs 4 Mine Access Road areas which are within 20 metres of mapped watercourses. Photographs of the Rhodes Ridge Access Road intersection indicate the Great Northern Highway may cross a watercourse at this location (Rio Tinto, 2011).

The proposed clearing is small (1.5 hectares within a 25.6 hectare footprint) and divided between three clearing areas that are spread over a 23 kilometre section of the Great Northern Highway. The proposed clearing is not likely to cause or exacerbate the incidence or intensity of flooding, surface or groundwater quality or land degradation.

There are no conservation areas in the local area (30 kilometre radius), however the application area falls within DEC File Notation Area (FNA) 0000532 for Conservation of Mulga, Pilbara Region and FNA 0006400 - Proposed Mulga Land Conservation Reserve. Together these FNAs cover an area of approximately 9000 square kilometres and include Mulga vegetation identified by DEC as potentially having conservation significance (Rio Tinto, 2011).

Considering the above, the proposed clearing may be at variance to Principles (a) and (f) and is not likely to be at variance to the remaining clearing principles.

Conditions to maintain an adequate buffer to watercourses will mitigate impacts to riparian vegetation.

Methodology

References:

Keighery, 1994

Mattiske Consulting, 2010

Rio Tinto, 2011

GIS Databases:

- Hydrography, linear - DoW 13/7/06

- Newman 1.4m Orthomosaic - Landgate 2003

- Ophthalmia 50cm Orthomosaic - Landgate 2004

- Pre-European vegetation - DA 01/01

- SAC Biodatasets - 27/04/11

- Soils, Statewide - 30/11/99

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

Comments

The proposed clearing is to be conducted within Main Roads Western Australia's (MRWA) Great Northern Highway road reserve. MRWA has advised it has no objection to the construction / upgrade of the proposed access roads, subject to conditions, acceptance of which will be required in writing prior to MRWA's further consideration of the works (MRWA, 2011).

Photographs of the Rhodes Ridge Access Road intersection indicate the Great Northern Highway may cross a watercourse at this location (Rio Tinto, 2011). The proposed clearing is within an area proclaimed under the *Rights in Water and Irrigation Act 1914* and, as such, any interference with the bed or banks of a watercourse in this area is subject to licensing by the Department of Water.

The Environmental Protection Authority (EPA) has decided to set the level of assessment for the Hope Downs Iron Ore Mine Expansion as "not assessed - recommended proposal be dealt with under Part V Division 2 of the *Environmental Protection Act 1986*".

There are no known Aboriginal Sites of Significance within the application areas.

- Methodology** References:
- MRWA, 2011
 - Rio Tinto, 2011
 - GIS Databases:
 - Aboriginal Sites of Significance - DIA 02/10
 - Cadastre - Landgate 12/09
 - RIWI Act, Areas - DoW 05/04/02

4. References

- DEC (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed 27/04/2011.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske Consulting (2010) Flora and Vegetation Survey of Hope Downs 4, Rhodes Ridge Drilling and Eagle Road Re-alignment Areas. Prepared for Rio Tinto by Mattiske Consulting Pty Ltd, August 2010. DEC Ref: A389300
- MRWA (2011) Application for access points Great Northern Highway - Conditional approval. Main Roads Western Australia. DEC Ref: A399721
- Rio Tinto (2011) Native Vegetation Clearing Application CPS 4327/1 supporting information and Flora and Vegetation Survey for HD4 Great Northern highway Intersections (Eagle Rock Falls Track and Weeli Wolli Road). DEC Ref: A389300
- 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)