



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 3947/1
Permit Holder:	BHP Billiton Iron Ore Pty Ltd
Duration of Permit:	25 December 2010 – 25 December 2015

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 purposes of maintaining a delineated corridor for the Newman Power Network.

2. Land on which clearing is to be done

unallocated Crown Land (Newman 6753)
Lot 56 on Plan 32128 (Newman 6753)
Lot 19 on Plan 48921 (Newman 6753)
Lot 55 on Plan 32127 (Newman 6753)
Lot 17 on Plan 241430 (Newman 6753)
unallocated Crown Land (Newman 6753)
Lot 300 on Plan 64866 (Newman 6753)
Lot 1645 on Plan 186544 (Newman 6753)
Lot 1508 on Plan 184898 (Newman 6753)
Lot 1509 on Plan 184897 (Newman 6753))
Lot 2344 on Plan 92146 (Newman 6753)
Lot 2343 on Plan 92145 (Newman 6753)
unallocated Crown Land (Newman 6753)
Lot 688 on Plan 183376 (Newman 6753)
Lot 500 on Plan 55236 (Newman 6753)
Lot 2000 on Diagram 85028 (Newman 6753)
Lot 2001 on Diagram 85028 (Newman 6753)
Lot 1328 on Plan 183375 (Newman 6753)
Road Reserve (Newman 6753)
Road Reserve (Newman 6753)
Lot 1401 on Plan 214575 (Newman 6753)
unallocated Crown Land (Newman 6753)
Lot 1636 on Plan 215910 (Newman 6753)
Lot 2356 on Plan 216724 (Newman 6753)
Lot 2357 on Plan 216724 (Newman 6753)
Lot 505 on Plan 66729 (Newman 6753)
Lot 507 on Plan 66729 (Newman 6753)
Lot 9000 on Plan 56657 (Newman 6753)
Lot 506 on Plan 66729 (Newman 6753)
Lot 18 on Plan 56657 (Newman 6753)
Road Reserve (Newman 6753)
Lot 1579 on Plan 216754 (Newman 6753)

Lot 1580 on Plan 216754 (Newman 6753)
Road Reserve (Newman 6753)
unallocated Crown Land (Newman 6753)
Road Reserve (Newman 6753)
Lot 1317 on Plan 214582 (Newman 6753)
Road Reserve (Newman 6753)
Lot 995 on Plan 215749 (Newman 6753)
Road Reserve (Newman 6753)
Lot 2320 on Plan 218369 (Newman 6753)
Lot 2324 on Plan 218369 (Newman 6753)
Road Reserve (Newman 6753)
Lot 2319 on Plan 218369 (Newman 6753)
Lot 1511 on Plan 215292 (Newman 6753)
Road Reserve (Newman 6753)
Lot 2315 on Plan 189978 (Newman 6753)
Road Reserve (Newman 6753)
Lot 1789 on Plan 216374 (Newman 6753)
Road Reserve (Newman 6753)
Lot 1910 on Plan 216630 (Newman 6753)
Lot 1912 on Plan 216630 (Newman 6753)
Lot 2348 on Plan 193231 (Newman 6753)
Lot 12 on Diagram 93903 (Newman 6753)
Road Reserve (Newman 6753)
Road Reserve (Newman 6753)
Lot 508 on Plan 61693 (Newman 6753)
Road Reserve (Newman 6753)
Lot 151 on Plan 58929 (Newman 6753)
Lot 152 on Plan 58929 (Newman 6753)
Lot 1895 on Plan 216558 (Newman 6753)
Lot 1878 on Plan 216558 (Newman 6753)
Lot 1876 on Plan 216558 (Newman 6753)
Road Reserve (Newman 6753)
Lot 149 on Plan 58929 (Newman 6753)
Lot 150 on Plan 58929 (Newman 6753)
Road Reserve (Newman 6753)
Lot 1879 on Plan 216558 (Newman 6753)
Lot 1877 on Plan 216558 (Newman 6753)
Lot 300 on Plan 65155 (Newman 6753)
Lot 1148 on Plan 183383 (Newman 6753)
Lot 2270 on Plan 216851 (Newman 6753)
Road Reserve (Newman 6753)
Road Reserve (Newman 6753)
Road Reserve (Newman 6753)
Lot 500 on Plan 217443 (Newman 6753)
unallocated Crown Land (Newman 6753)
Lot 16 on Plan 194288 (Newman 6753)
Lot 44 on Plan 181724 (Newman 6753)
Lot 42 on Plan 217099 (Newman 6753)
Lot 37 on Plan 92399 (Newman 6753)
Lot 19 on Plan 48921 (Newman 6753)
Lot 71 on Plan 216352 (Newman 6753)
Lot 72 on Plan 216352 (Newman 6753)
Lot 73 on Plan 216352 (Newman 6753)
Lot 176 on Plan 219293 (Newman 6753)
Lot 144 on Plan 192902 (Newman 6753)
Lot 17 on Plan 241430 (Newman 6753)
unallocated Crown Land (Newman 6753)
Lot 228 on Plan 38162 (Newman 6753)

Lot 175 on Plan 219293 (Newman 6753)
unallocated Crown Land (Newman 6753)
Lot 500 on Plan 52690 (Newman 6753)
Lot 2351 on Plan 216869 (Newman 6753)
unallocated Crown Land (Newman 6753)
Lot 511 on Plan 66718 (Newman 6753)
Lot 302 on Plan 43550 (Newman 6753)
Lot 1 on Diagram 76075 (Newman 6753)
Lot 1983 on Plan 216624 (Newman 6753)
Lot 11 on Diagram 93903 (Newman 6753)

3. Area of Clearing

The Permit Holder must not clear more than 376 hectares of native vegetation within the combined area shaded yellow on attached Plan 3947/1a and Plan 3947/1b and Plan 3947/1c and Plan 3947/1d.

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:

- (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. Weed control

(a) When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:

- (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (ii) ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (iii) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

(b) At least once in each 12 month period for the term of this Permit, the Permit Holder must remove or kill any *weeds* growing within areas cleared under this Permit.

9. Drainage management

The Permit Holder shall not cause or permit the discharge of sediments, from within those areas permitted to be cleared under this permit, into watercourses associated with the Ethel Gorge Aquifer.

PART III - RECORD KEEPING AND REPORTING

10. Records must be kept

- (a) 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:
- (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 the drainage management of areas pursuant to condition 9 a description of the drainage management activities undertaken.

11. 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 10 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 25 September 2015, the Permit Holder must provide to the CEO a written report of records required under condition 10 of this Permit where these records have not already been provided under condition 11(a) of this Permit.

Definitions

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

fill means material used to increase the ground level, or fill a hollow;

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation; and

weed/s means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.

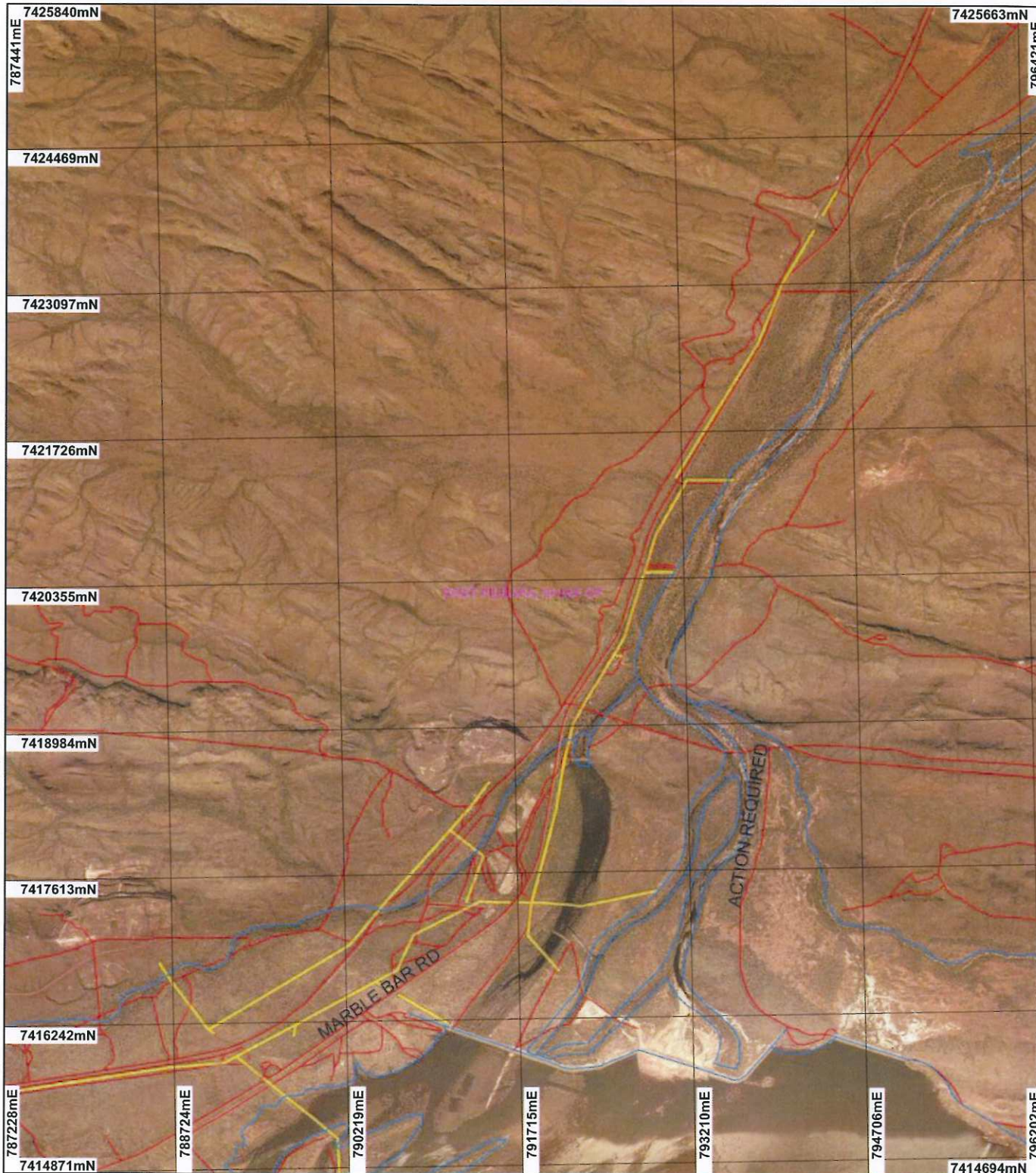


M Warnock
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

25 November 2010

Plan 3947/1a



LEGEND

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

Rivers
Newman 1.4m Orthomosaic - Landgate 2003



Scale 1:50000
(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.

M Warnock Date *25/11/10*

M Warnock
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.

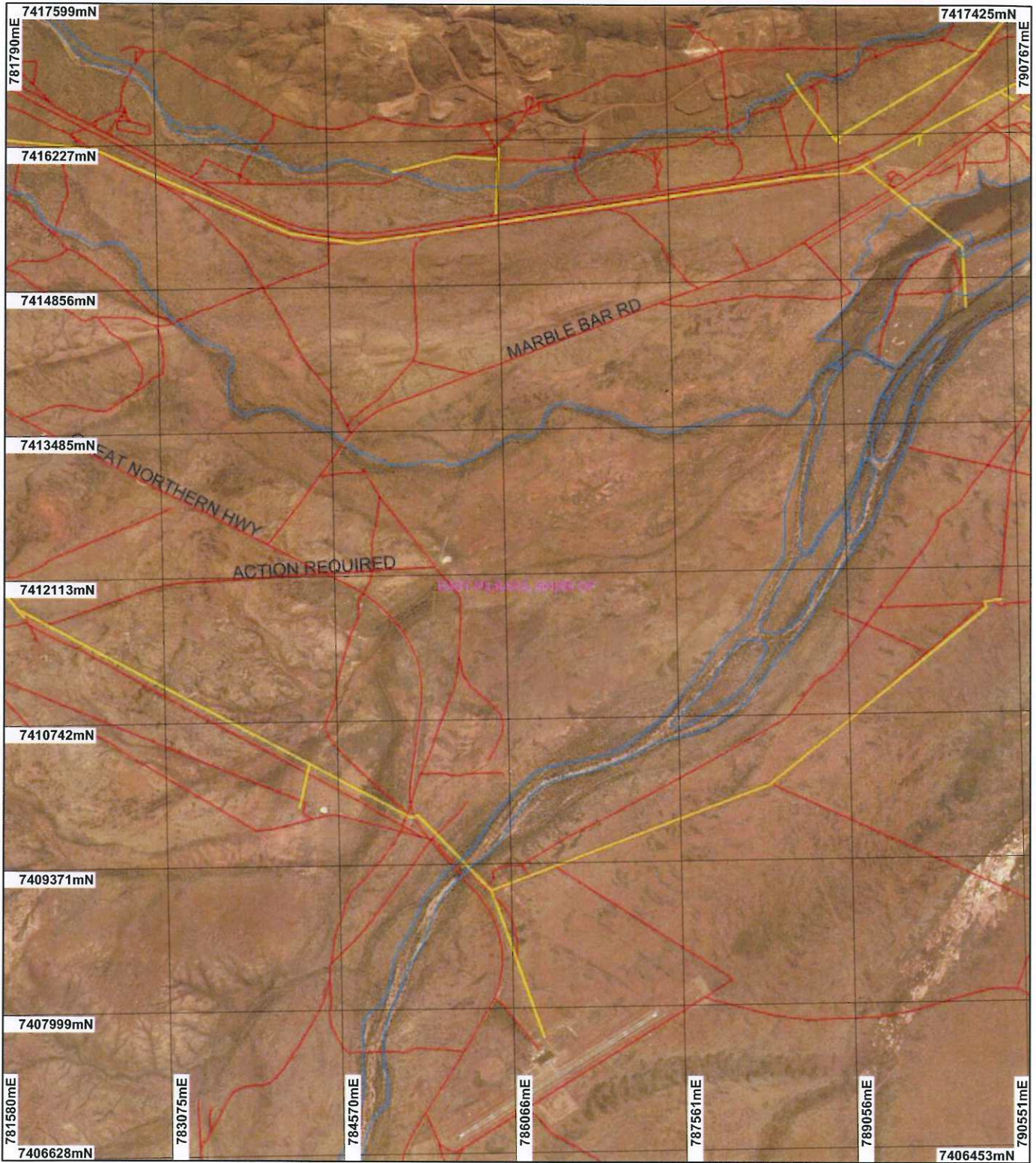


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* Project Data is denoted by asterisk. This data has not been quality assured. Please contact map author for details.

Plan 3947/1b



LEGEND

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

Rivers
Newman 1.4m Orthomosaic - Landgate 2003



Scale 1:50000
(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.

M Warnock Date 25/11/10

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

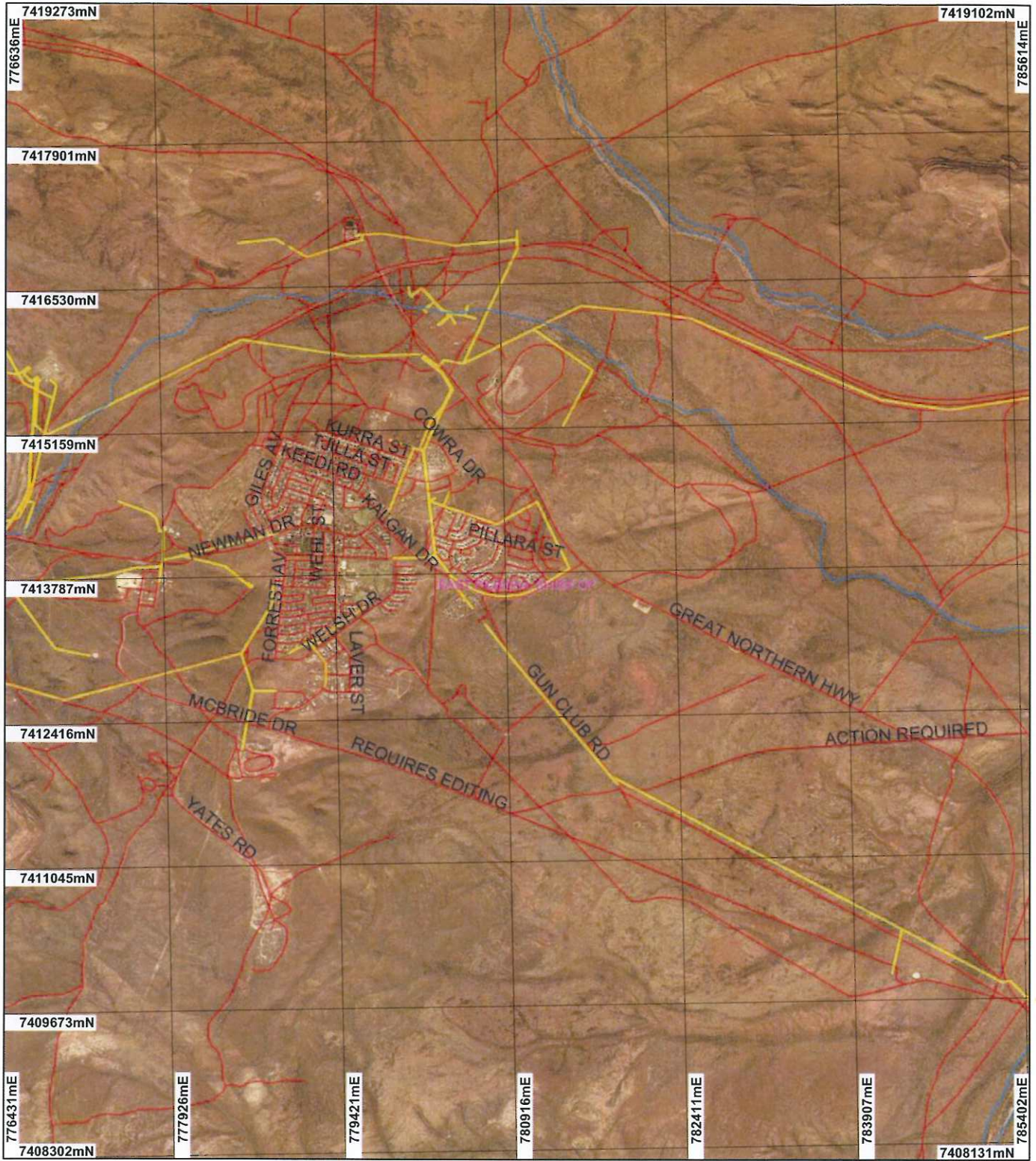
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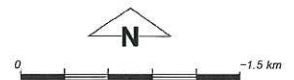
Plan 3947/1c



LEGEND

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

Rivers
Newman 1.4m Orthomosaic - Landgate 2003



Scale 1:50003

(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.

M Warnock Date *25/11/10*

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.

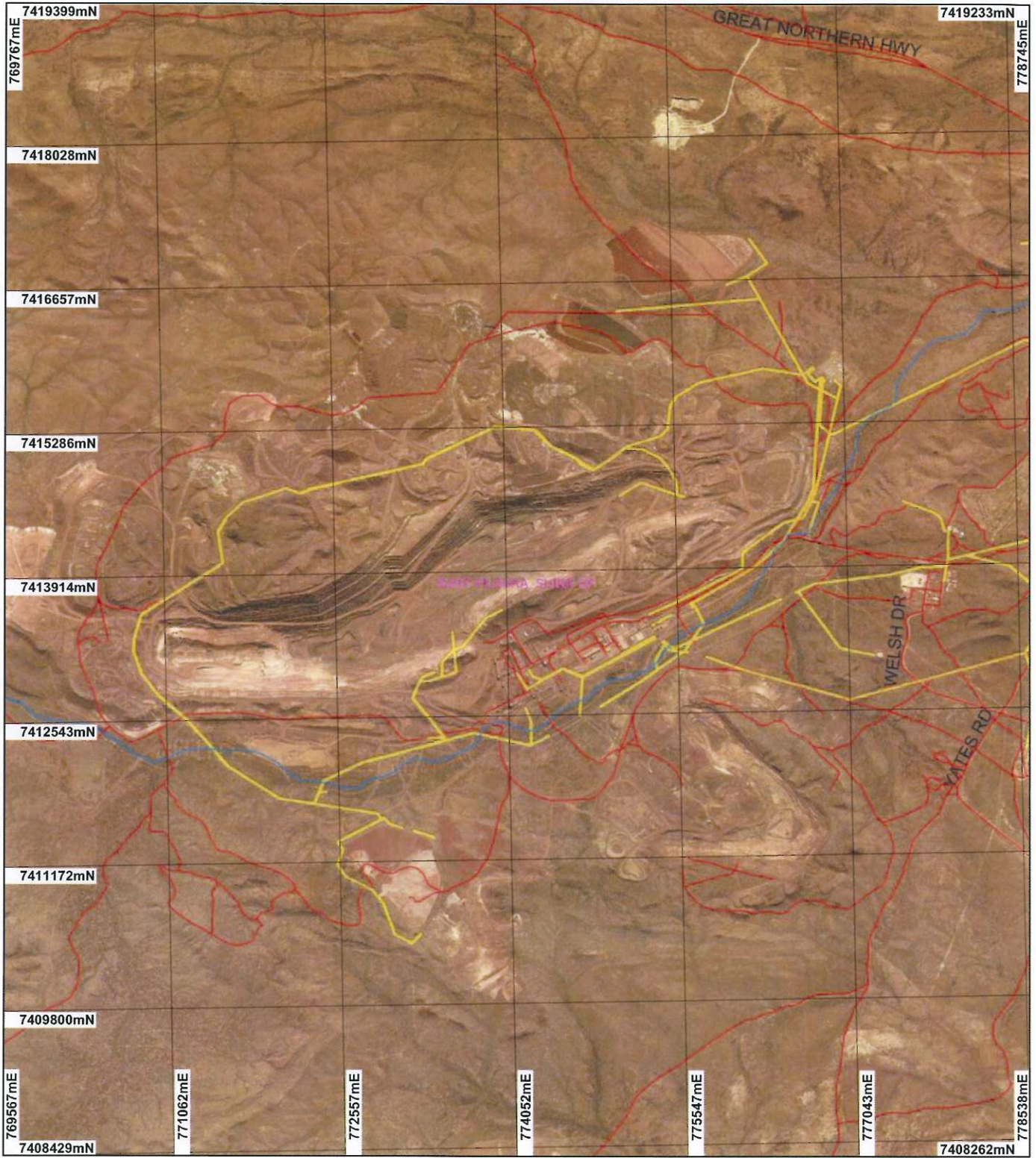


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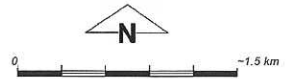
* Project Data is denoted by asterisk. This data has not been quality assured. Please contact map author for details.

Plan 3947/1d



LEGEND

- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Local Government Authorities
- Rivers
- Newman 1.4m Orthomosaic - Landgate 2003



Scale 1:50003
(Approximate when reproduced at A4)

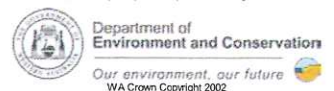
Geocentric Datum Australia 1994

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

M Warnock Date 25/11/10

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.



* Project Data is denoted by asterisk. This data has not been quality assured. Please contact map author for details.



1. Application details

1.1. Permit application details

Permit application No.: 3947/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: BHP Billiton Iron Ore Pty Ltd

1.3. Property details

Property:

- UNALLOCATED CROWN LAND (NEWMAN 6753)
- LOT 56 ON PLAN 32128 (NEWMAN 6753)
- LOT 19 ON PLAN 48921 (NEWMAN 6753)
- LOT 55 ON PLAN 32127 (NEWMAN 6753)
- LOT 17 ON PLAN 241430 (NEWMAN 6753)
- UNALLOCATED CROWN LAND (NEWMAN 6753)
- LOT 300 ON PLAN 64866 (NEWMAN 6753)
- LOT 1645 ON PLAN 186544 (NEWMAN 6753)
- LOT 1508 ON PLAN 184898 (NEWMAN 6753)
- LOT 1509 ON PLAN 184897 (NEWMAN 6753)
- LOT 2344 ON PLAN 92146 (NEWMAN 6753)
- LOT 2343 ON PLAN 92145 (NEWMAN 6753)
- UNALLOCATED CROWN LAND (NEWMAN 6753)
- LOT 688 ON PLAN 183376 (Lot No. 688 NEWMAN NEWMAN 6753)
- LOT 500 ON PLAN 55236 (NEWMAN 6753)
- LOT 2000 ON DIAGRAM 85028 (Lot No. 2000 NEWMAN NEWMAN 6753)
- LOT 2001 ON DIAGRAM 85028 (Lot No. 2001 NEWMAN NEWMAN 6753)
- LOT 1328 ON PLAN 183375 (Lot No. 1328 NEWMAN NEWMAN 6753)
- ROAD RESERVE (NEWMAN 6753)
- LOT 1401 ON PLAN 214575 (Lot No. 1401 NEWMAN NEWMAN 6753)
- UNALLOCATED CROWN LAND (NEWMAN 6753)
- LOT 1636 ON PLAN 215910 (NEWMAN 6753)
- LOT 2356 ON PLAN 216724 (NEWMAN 6753)
- LOT 2357 ON PLAN 216724 (NEWMAN 6753)
- LOT 505 ON PLAN 66729 (NEWMAN 6753)
- LOT 507 ON PLAN 66729 (NEWMAN 6753)
- LOT 9000 ON PLAN 56657 (NEWMAN 6753)
- LOT 506 ON PLAN 66729 (NEWMAN 6753)
- LOT 18 ON PLAN 56657 (House No. 9 WONMUNNA NEWMAN 6753)
- LOT 18 ON PLAN 56657 (House No. 9 WONMUNNA NEWMAN 6753)
- ROAD RESERVE (NEWMAN 6753)
- LOT 1579 ON PLAN 216754 (House No. 40 WOODSTOCK NEWMAN 6753)
- LOT 1580 ON PLAN 216754 (House No. 32 WOODSTOCK NEWMAN 6753)
- ROAD RESERVE (NEWMAN 6753)
- UNALLOCATED CROWN LAND (NEWMAN 6753)
- ROAD RESERVE (NEWMAN 6753)
- LOT 1317 ON PLAN 214582 (House No. 38 MULLGUNBAH NEWMAN 6753)
- UNALLOCATED CROWN LAND (NEWMAN 6753)
- ROAD RESERVE (NEWMAN 6753)
- LOT 995 ON PLAN 215749 (House No. 2A THULLUNA NEWMAN 6753)
- LOT 1317 ON PLAN 214582 (House No. 38 MULLGUNBAH NEWMAN 6753)
- ROAD RESERVE (NEWMAN 6753)
- LOT 2320 ON PLAN 218369 (Lot No. 2320 WHALEBACK NEWMAN 6753)
- LOT 2324 ON PLAN 218369 (Lot No. 2324 WHALEBACK NEWMAN 6753)
- ROAD RESERVE (NEWMAN 6753)
- LOT 2319 ON PLAN 218369 (Lot No. 2319 WHALEBACK NEWMAN 6753)
- LOT 1511 ON PLAN 215292 (House No. 75 FORTESCUE NEWMAN 6753)
- ROAD RESERVE (NEWMAN 6753)

LOT 2315 ON PLAN 189978 (House No. 36 KALGAN NEWMAN 6753)
 ROAD RESERVE (NEWMAN 6753)
 LOT 1789 ON PLAN 216374 (House No. 55 KALGAN NEWMAN 6753)
 ROAD RESERVE (NEWMAN 6753)
 LOT 1910 ON PLAN 216630 (House No. 21 KALGAN NEWMAN 6753)
 LOT 1912 ON PLAN 216630 (House No. 15 KALGAN NEWMAN 6753)
 LOT 2348 ON PLAN 193231 (House No. 15 COWRA NEWMAN 6753)
 LOT 12 ON DIAGRAM 93903 (House No. 1 COWRA NEWMAN 6753)
 ROAD RESERVE (NEWMAN 6753)
 ROAD RESERVE (NEWMAN 6753)
 LOT 508 ON PLAN 61693 (NEWMAN 6753)
 ROAD RESERVE (NEWMAN 6753)
 LOT 151 ON PLAN 58929 (House No. 33 CALLAWA NEWMAN 6753)
 LOT 152 ON PLAN 58929 (House No. 31 CALLAWA NEWMAN 6753)
 LOT 1895 ON PLAN 216558 (House No. 29 MCLENNAN NEWMAN 6753)
 LOT 1878 ON PLAN 216558 (House No. 9F MCLENNAN NEWMAN 6753)
 LOT 1876 ON PLAN 216558 (House No. 31 MCLENNAN NEWMAN 6753)
 ROAD RESERVE (NEWMAN 6753)
 LOT 149 ON PLAN 58929 (House No. 40 BRAESIDE NEWMAN 6753)
 LOT 150 ON PLAN 58929 (House No. 35 CALLAWA NEWMAN 6753)
 ROAD RESERVE (NEWMAN 6753)
 LOT 1879 ON PLAN 216558 (House No. 17 CALLAWA NEWMAN 6753)
 LOT 1877 ON PLAN 216558 (House No. 19 CALLAWA NEWMAN 6753)
 LOT 300 ON PLAN 65155 (NEWMAN 6753)
 LOT 1148 ON PLAN 183383 (House No. 100 KALGAN NEWMAN 6753)
 LOT 2270 ON PLAN 216851 (House No. 18 NIMINGARRA NEWMAN 6753)
 ROAD RESERVE (NEWMAN 6753)
 LOT 500 ON PLAN 217443 (NEWMAN 6753)
 UNALLOCATED CROWN LAND (NEWMAN 6753)
 LOT 16 ON PLAN 194288 (NEWMAN 6753)
 LOT 44 ON PLAN 181724 (Lot No. 44 GREAT NORTHERN NEWMAN 6753)
 LOT 42 ON PLAN 217099 (NEWMAN 6753)
 LOT 37 ON PLAN 92399 (NEWMAN 6753)
 LOT 16 ON PLAN 194288 (NEWMAN 6753)
 LOT 19 ON PLAN 48921 (NEWMAN 6753)
 LOT 71 ON PLAN 216352 (Lot No. 71 GREAT NORTHERN NEWMAN 6753)
 LOT 72 ON PLAN 216352 (NEWMAN 6753)
 LOT 73 ON PLAN 216352 (NEWMAN 6753)
 LOT 176 ON PLAN 219293 (NEWMAN 6753)
 LOT 144 ON PLAN 192902 (NEWMAN 6753)
 LOT 17 ON PLAN 241430 (NEWMAN 6753)
 UNALLOCATED CROWN LAND (NEWMAN 6753)
 LOT 228 ON PLAN 38162 (NEWMAN 6753)
 LOT 175 ON PLAN 219293 (NEWMAN 6753)
 UNALLOCATED CROWN LAND (NEWMAN 6753)
 LOT 500 ON PLAN 52690 (NEWMAN 6753)
 LOT 2351 ON PLAN 216869 (NEWMAN 6753)
 UNALLOCATED CROWN LAND (NEWMAN 6753)
 LOT 511 ON PLAN 66718 (NEWMAN 6753)
 LOT 302 ON PLAN 43550 (Lot No. 302 NEWMAN NEWMAN 6753)
 LOT 1 ON DIAGRAM 76075 (House No. 75 COWRA NEWMAN 6753)
 ROAD RESERVE (NEWMAN 6753)
 LOT 1983 ON PLAN 216624 (House No. 17 COWRA NEWMAN 6753)
 LOT 11 ON DIAGRAM 93903 (Lot No. 11 NEWMAN NEWMAN 6753)
 UNALLOCATED CROWN LAND (NEWMAN 6753)

Local Government Area:

Colloquial name:

1.4. Application

Clearing Area (ha)
376

No. Trees

Method of Clearing
Mechanical Removal

For the purpose of:
Infrastructure Maintenance

1.5. Decision on application

Decision on Permit Application: Granted

Decision Date: 25 November 2010

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
The following Beard vegetation associations are mapped as occurring within the applied area: 18: Low woodland; mulga (<i>Acacia aneura</i>) 29: Sparse low woodland; mulga, discontinuous in scattered groups 82: Hummock grasslands, low tree steppe; snappy gum over <i>Triodia wiseana</i> (Hopkins et al 2001, Shepherd 2009)	This proposal is for the clearing of 376 ha of native vegetation for the purpose of maintaining a power corridor for the Newman Power Network. The current length of the network is 132 km, and the proposal is to install and maintain a graded area either side of the power line network to a width of 10 m either side of the poles on all active mine leases and to 6 m either side of poles within the Newman township (BHP Billiton Iron Ore 2010). Ten vegetation associations were defined and mapped within the surveyed project area (12 m on either side of the power lines), with the vegetation being mostly degraded due to previous clearing for construction power lines and maintenance of access tracks (Biologic 2009).	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994) to Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The condition and description of the vegetation under application was determined via a flora and fauna survey report (Biologic 2009).

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

This proposal is for the clearing of 376 ha of native vegetation for the purpose of maintaining a power corridor for the Newman Power Network. The current length of the network is 132 km, and the proposal is to install and maintain a graded area to a width of 10 m either side of the poles on all active mine leases and to 6 m either side of poles within the Newman township (BHP Billiton Iron Ore 2010).

Of the 376 ha proposed to be cleared, approximately 295 ha have been previously disturbed or are predominantly devoid of vegetation, with the vegetation under application considered to be in completely degraded to good (Keighery 1994) condition (BHP Billiton Iron Ore 2010; Biologic 2009). A level 2 flora survey undertaken in July 2009 of the 132 km long project area identified 319 flora species, which is comparable to other nearby surveys, and 14 weed species, which may be due to the highly disturbed nature of the vegetation (Biologic 2009). One species of conservation significance, *Goodenia nuda* (P4), and a species, *Duperreya sericea* outside of its range extension, were identified within the project area (Biologic 2009). The applicant should avoid disturbance to priority flora and other significant species.

The areas under application are within the extensively vegetated Pilbara and Gascoyne bioregions (99% and 100% of pre-1750 vegetation remaining) (Shepherd 2009).

Given the high representation of native vegetation in the local landscape with a high level of comparable habitat in the bioregion, it is not considered likely that the vegetation under application comprises high biodiversity values. Therefore the clearing proposal is not likely to be at variance to this Principle.

Methodology

References:

- BHP Billiton Iron Ore (2010)
- Biologic (2009)
- Keighery (1994)
- Shepherd (2009)

GIS Databases:

- Interim Biogeographic Regionalisation of Australia
- Pre-European Vegetation
- SAC Bio Datasets (accessed 19/11/2010)

(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

Twenty two significant fauna taxa have been recorded or may occur in or near the project area, with two conservation significant species, the Rainbow bee-eater and Star Finch recorded during an opportunistic, level

1 fauna survey in July 2009 (Biologic 2009). In total, during the survey seven native mammal species, fifty seven bird species and twelve reptile species were recorded (Biologic 2009).

The survey identified that most of project area consisted of degraded grassland with the occasional spinifex and medium shrub; it is considered that this habitat and its characteristics provide minimal values for significant species in the area (Biologic 2009). Overall the surveyed vegetation was considered to be in good to completely degraded (Keighery 1994) condition (Biologic 2009).

The Beard vegetation types mapped within the areas under application are well represented in the bioregion. In addition, within the Shire of East Pilbara 100% (Shepherd 2009) of pre-1750 extent of native vegetation remains.

Given the long and linear nature of the proposal and the high level of comparable habitat in the local and regional landscape, it is not considered likely that the vegetation under application comprises significant fauna habitat. Therefore the clearing proposal is not likely to be at variance to this Principle.

Methodology References:
- Biologic (2009)
- Keighery (1994)
- Shepherd (2009)
GIS Databases:
- Pre-European Vegetation
- SAC Bio Datasets (accessed 19/11/2010)

(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

One rare flora species, *Lepidium catapycnon*, has been recorded within 50 km of the areas under application. Based on preferred habitats and the low flora habitat values of the vegetation under application; it was considered this species has a low likelihood of occurring within the survey area (Biologic 2009). A flora survey of the project area undertaken in July 2009 did not identify any rare flora species. Therefore, the proposed clearing is not likely to be at variance to this Principle.

Methodology Reference:
- Biologic (2009)
GIS Database:
- SAC Bio Datasets (accessed 19/11/2010)

(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 may be at variance to this Principle

The central and eastern sections of the proposed clearing occur within the boundary and buffer of the endangered threatened ecological community (TEC): Ethel Gorge aquifer stygobiont community. This TEC is groundwater dependent and is likely to be adversely impacted by alterations to groundwater and surface water quality. Given the proposal is to maintain a cleared power corridor, it is considered there will be no impacts to the groundwater, and disturbances to surface water will be minimal as the proposed clearing is to occur over 132 kms. However there is insufficient information to determine the potential impacts of clearing on surface water flows. As the proposed clearing is for the purpose of maintaining a cleared power corridor, there may be impacts to the threatened ecological community. Therefore the proposed clearing may be at variance to this Principle.

Weed and drainage management conditions would mitigate any impact the proposed clearing would have on the threatened ecological community.

Methodology Reference:
- Biologic (2009)
GIS Database:
- SAC Bio Datasets (accessed 19/11/2010)

(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 under application is mapped as Beard vegetation types 18, 29 and 82, of which there is 100% of pre-1750 vegetation extent remaining for all (Shepherd 2009). In addition, there is 100% remaining in the Shire and bioregions.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance

of ecological communities with an extent below 30 % of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001). The Beard vegetation types retain more than the 30% threshold.

As the vegetation is well represented locally and regionally, the vegetation under application it is not significant as a remnant in an area that has been extensively cleared. Therefore, the clearing as proposed is not likely to be at variance to this Principle.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	% In reserves DEC Managed Land
IBRA Bioregions				
Pilbara	17,804,193	17,785,000	99.9	
Gascoyne	18,075,219	18,075,219	100	
Shire				
East Pilbara	37,183,293	37,182,808	100	
Beard Vegetation Association with Gascoyne Bioregion				
18	3,273,579	3,273,579	100	9.6
29	3,802,459	3,802,459	100	7.8
82	2,318	2,318	100	0.0
Beard Vegetation Association with Pilbara Bioregion				
18	676,556	676,556	100	17.1
29	1,113,219	1,113,219	100	1.9
82	2,563,583	2,563,583	100	10.5

(Shepherd 2009)

Methodology References:
 -Commonwealth of Australia (2001)
 -Shepherd (2009)
 GIS Databases:
 -Pre-European Vegetation
 -NLWRA, Current Extent of Native Vegetation
 -Interim Biogeographic Regionalisation of Australia

(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 at variance to this Principle

The proposed clearing crosses watercourses such as the Fortescue River and the Ophthalmia Reservoir. Of the 376 ha proposed to be cleared, approximately 295 ha have been previously disturbed or are predominantly devoid of vegetation, with the vegetation under application considered to be in completely degraded to good (Keighery 1994) condition (BHP Billiton Iron Ore 2010; Biologic 2009).

The proposed clearing comprises vegetation associated with the watercourses, including Open Woodland Eucalyptus camaldulensis (Biologic 2009). The vegetation associated with watercourses has been historically impacted by clearing for infrastructure and cattle grazing (BHP Billiton Iron Ore 2010).

Given the close proximity to the watercourses and the presence of vegetation associated with a watercourse, it is considered that vegetation associated with a watercourse will be impacted. Therefore the proposed clearing is at variance to this Principle.

Methodology Reference:
 - BHP Billiton Iron Ore (2010)
 GIS Databases:
 - Hydrography, linear
 - Rivers

(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 landscape is dominated by long, steep-sided and elevated ridges that are interspersed with generally narrow valleys, which become progressively wider and of lower gradient downstream, where they drain into the broad and flat valley of the Fortescue River (Biologic 2009). The soils on the ridges are thin to absent, the soils in the valleys are generally sandy loams and the soils within the valley of the Fortescue River are red

sands (Biologic 2009).

The proposal will involve some soil disturbance. However, given the long and linear nature of the clearing, the proposal is not likely to lead to appreciable land degradation.

Methodology Reference:
- Biologic (2009)

(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 nearest DEC managed land is Karijini National Park, located approximately 110 km north west of the areas under application within the Shire of Ashburton. Given the distance to the nearest conservation areas, it is considered the proposed clearing is not likely to impact on their environmental values.

Methodology 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 proposed clearing crosses watercourses such as the Fortescue River and the Ophthalmia Reservoir. Of the 376 ha proposed to be cleared, approximately 295 ha have been previously disturbed or are predominantly devoid of vegetation (BHP Billiton Iron Ore 2010).

It is noted that the clearing proposal is likely to cause in short term impacts. However, given the long and linear nature of the clearing, it is considered that the impacts are not likely to result in deterioration in the quality of surface or ground water.

Methodology Reference:
- BHP Billiton Iron Ore (2010)
GIS Databases:
- Hydrography, linear
- Rivers

(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 proposed clearing crosses watercourses such as the Fortescue River and the Ophthalmia Reservoir. Given the long and linear nature of the clearing, the proposal is not likely to cause or increase the incidence or intensity of flooding.

Methodology GIS Databases:
- Hydrography, linear
- Rivers

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

Comments

This proposal is for the clearing of 376 ha of native vegetation for the purpose of maintaining a cleared power corridor for the Newman Power Network. The current length of the network is 132 km, and the proposal is to install and maintain a graded area to a width of 10 m either side of the poles on all active mine leases and to 6 m either side of poles within the Newman township (BHP Billiton Iron Ore 2010).

The application area is located on various properties including State Agreement Act Lease ML 244SA, Special Lease 3116/3684, Pastoral Lease 3114 992 and Marble Bar Road Reserve. The relevant authorisations (including from the Shire of East Pilbara), for this project have been received. This application was referred to the DEC's Native Vegetation Conservation Branch as some clearing activities are proposed on non-Mining Act tenure.

The project area is located within the Newman Water Reserve (Priority 1) an area gazetted under the Country Areas Water Supply Act 1947 and also within the Proclaimed Surface Water Area, Pilbara River and Tributaries; any interference with bed and banks would require a licence from the Department of Water. Additionally the project area is located within the Pilbara Proclaimed Groundwater Area and any dewatering activities would require a licence from the Department of Water.

The Department of Water (2010) has advised that the clearing of 376 ha for the purpose of maintaining a

power corridor is unlikely to have a significant impact on the quality or quantity of groundwater, provided clearing activities are undertaken in accordance with best management practices and BHP Billiton Iron Ore's construction environmental management plans (Department of Water 2010). In addition, where the clearing area intersects a waterway not within a BHP tenement, the normal regulatory instruments under the Rights in Water and Irrigation Act 1914 may apply (Department of Water 2010).

The areas proposed to be cleared are within the Nyiyaparli Native Title Claimant area. The native title claimants and their representatives have been notified. A response has not been received.

There are a number of Aboriginal sites of significance throughout the application area. BHP Billiton Iron Ore (2010) outlines that before any ground disturbing activities proceed, an internal Project Environmental and Aboriginal Heritage Review (PEAHR) is undertaken to ensure heritage sites in the project area are identified and avoided where possible or approval to disturb an Aboriginal heritage site will be undertaken in accordance with the provisions of the Aboriginal Heritage Act 1972.

No submissions were received for this proposal.

Methodology

References:

- BHP Billiton Iron Ore (2010)
- Department of Water (2010)

GIS Databases:

- Aboriginal Sites of Significance
- Native Title NNTT
- Public Drinking Water Source Areas (PDWSAs)
- RIWI Act, Areas
- RIWI Act, Groundwater Areas

4. References

BHP Billiton Iron Ore (2010) Newman Power Line Allocation to Clear Native Vegetation (Purpose Permit) under the Environmental Protection Act 1986. BHP Billiton Iron Ore. DEC Ref A329416

Biologic (2009) Newman Power Network, Level 2 Flora and Level 1 Fauna Survey. Biologic. DEC Ref A329419

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

Department of Water (2010) Direct Interest Submission for CPS 3947/1. Department of Water Pilbara Region. DEC Ref A348871

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)