



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 4005/1
Permit Holder:	Hamersley Iron Pty Ltd
Duration of Permit:	18 December 2010 – 18 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 purpose of repair and maintenance to a diversion wall.

2. Land on which clearing is to be done

Lot 83 on Plan 238012 (Chichester 6751)

3. Area of Clearing

The Permit Holder must not clear more than 12 hectares of native vegetation within the combined areas shaded yellow on attached Plan 4005/1a, Plan 4005/1b, Plan 4005/1c, Plan 4005/1d and Plan 4005/1e.

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. 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

6. 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.

7. 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*:

- clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
 - ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
 - 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.

PART III - RECORD KEEPING AND REPORTING

8. 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).

9. Reporting

- (a) The Permit Holder must provide to the CEO, on or before 30 June of each year, a written report of records required under condition 8 of this Permit and activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 18 September 2015, the Permit Holder must provide to the CEO a written report of records required under condition 8 of this Permit where these records have not already been provided under condition 9(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*.

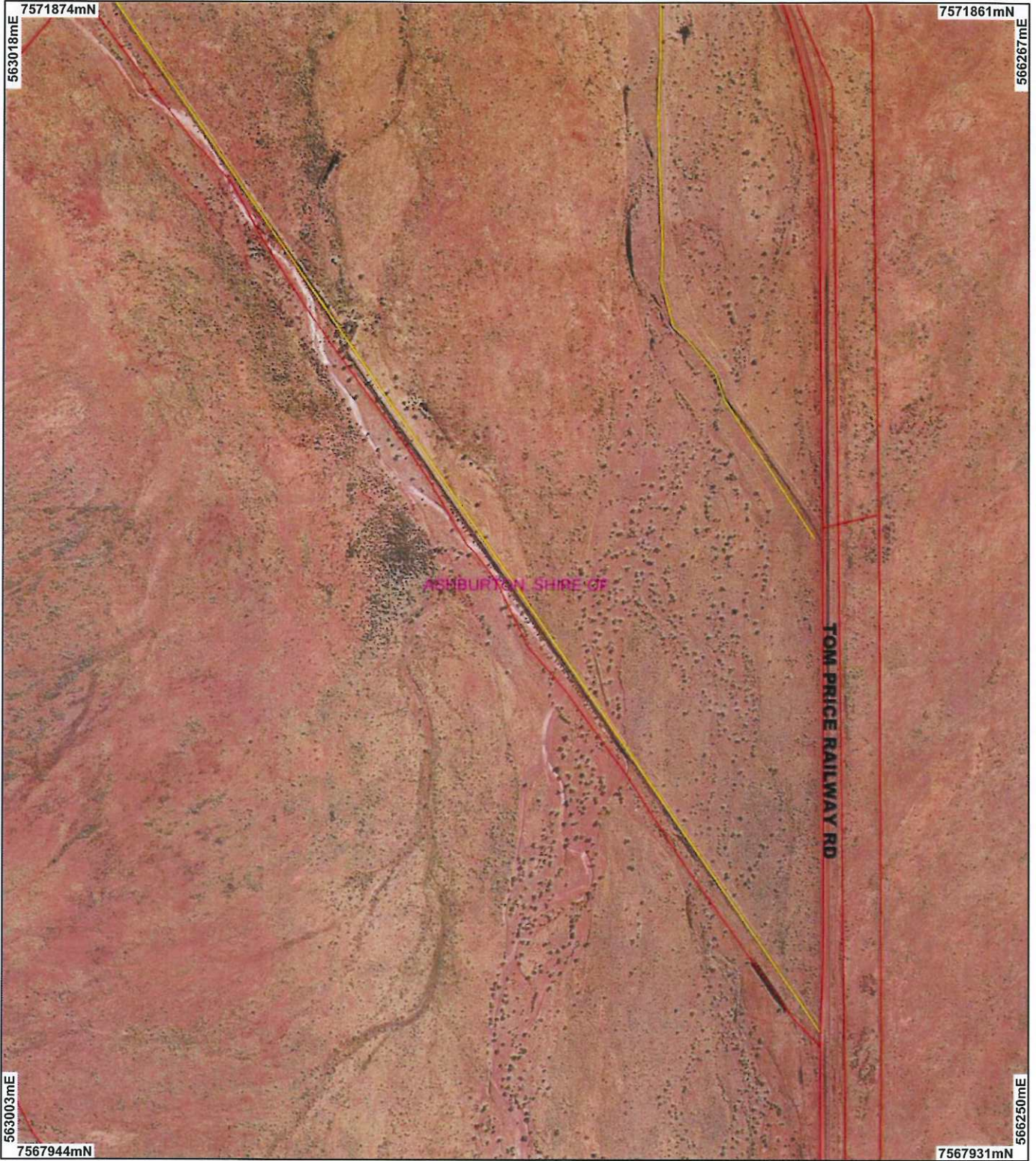


M G Warnock
A/ MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

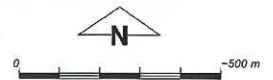
18 November 2010

Plan 4005/1a



LEGEND

- Clearing Instruments**
- Areas Approved to Clear
 - Road Centrelines
 - Local Government Authorities
- Mount Billroth 1.4m
Orthomosaic - Landgate 2000**



Scale 1:18000
(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 G Warnock Date 18/11/10

M G 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.



Department of Environment and Conservation

Our environment, our future
WA Crown Copyright 2002

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

Plan 4005/1b



LEGEND

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

Mount Billroth 1.4m
Orthomosaic - Landgate 2000



Scale 1:18001

(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 G Warnock Date 18/11/10

M G Warnock

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

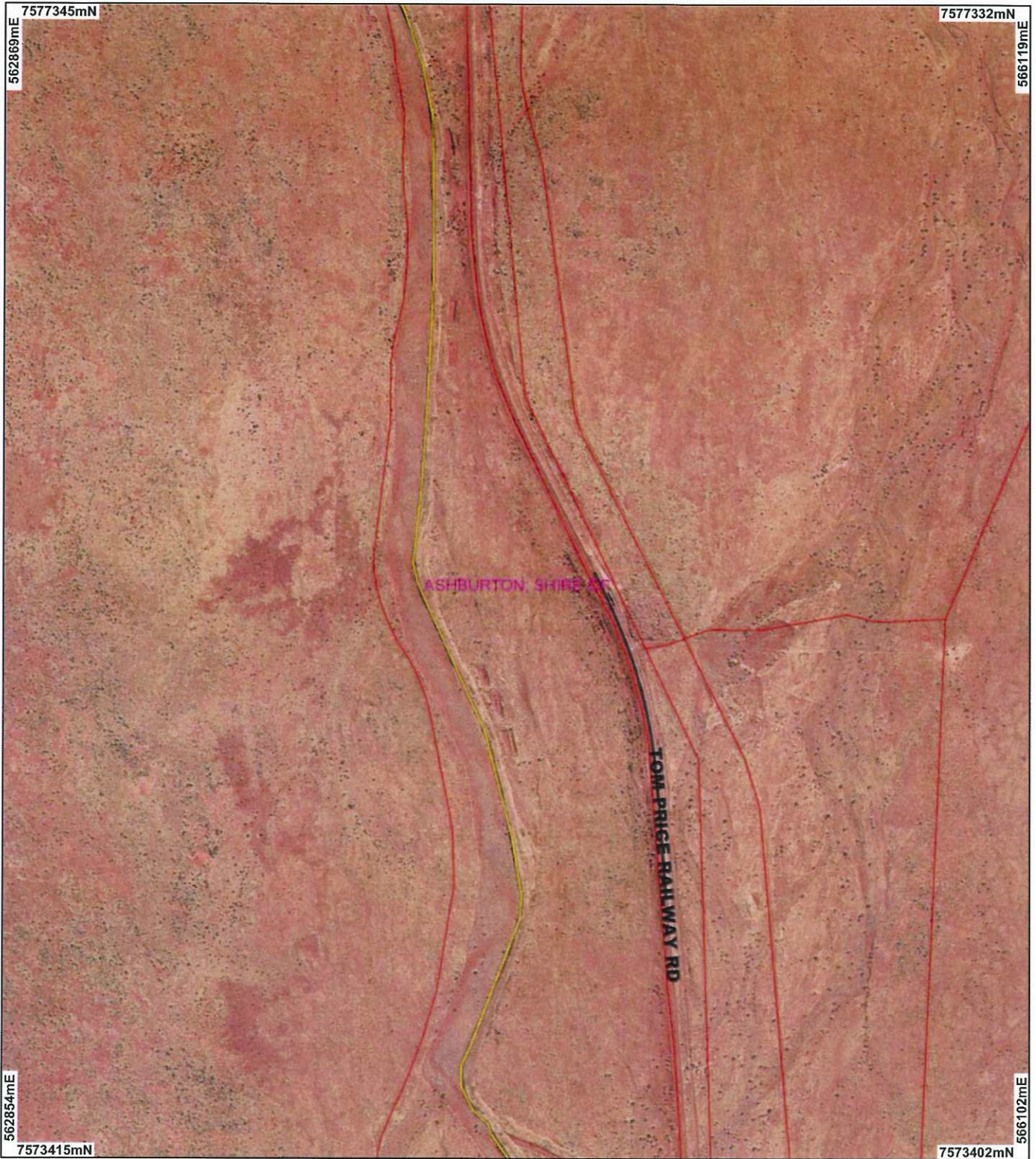
Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



Department of
Environment and Conservation

Our environment, our future
WA Crown Copyright 2002

Plan 4005/1c



LEGEND

- Clearing Instruments**
- Areas Approved to Clear
 - Road Centrelines
 - Local Government Authorities
- Mount Billroth 1.4m
Orthomosaic - Landgate 2000**



Scale 1:18003
(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 G Warnock Date 18/11/10

M G 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.



Department of
Environment and Conservation

Our environment, our future
WA Crown Copyright 2002

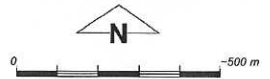
* Project Data is denoted by asterisk. This data has not been quality assured. Please contact map author for details.

Plan 4005/1d



LEGEND

- Clearing Instruments
- Areas Approved to Clear
 - Road Centrelines
 - Local Government Authorities
- Mount Billroth 1.4m
Orthomosaic - Landgate 2000



Geocentric Datum Australia 1994

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

M G Warnock Date 18/11/10

M G 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.



Department of Environment and Conservation
Our environment, our future
WA Crown Copyright 2002

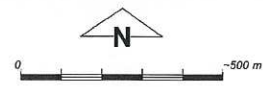
* Project Data is denoted by asterisk. This data has not been quality assured. Please contact map author for details.

Plan 4005/1e



LEGEND

- Clearing Instruments
- Areas Approved to Clear
 - Road Centrelines
 - Local Government Authorities
- Mount Billroth 1.4m
Orthomosaic - Landgate 2000



Geocentric Datum Australia 1994

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

M G Warnock Date 18/11/10

M G 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.



Department of
Environment and Conservation
Our environment, our future
WA Crown Copyright 2002



1. Application details

1.1. Permit application details

Permit application No.: 4005/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Hamersley Iron Pty Ltd

1.3. Property details

Property: LOT 83 ON PLAN 238012 (CHICHESTER 6751)
LOT 83 ON PLAN 238012 (CHICHESTER 6751)

Local Government Area:

Colloquial name: Coolawanyah Station (PL 3114/1228)

1.4. Application

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

1.5. Decision on application

Decision on Permit Application:

Decision Date:

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
<p>The vegetation present within the areas under application is mapped as three Beard vegetation associations:</p> <ul style="list-style-type: none"> - 175: Short bunch grassland - savanna/grass plain (Pilbara); - 644: Hummock grasslands, open low tree steppe; mulga & snakewood over soft spinifex & Triodia basedowii; and - 645: Hummock grasslands, shrub steppe; kanji & snakewood over soft spinifex & Triodia wiseana. <p>(Hopkins et al 2001; Shepherd 2009)</p>	<p>This proposal is for the clearing of 12 ha of native vegetation for the repair and maintenance of a diversion wall located Lot 83, Chichester.</p> <p>Twenty four vegetation community types were defined and mapped within the survey area, which includes the area under application (Morgan 2010). Overall the vegetation communities were in good to very good (Keighery 1994) condition (Morgan 2010).</p>	<p>Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)</p> <p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)</p>	<p>The vegetation condition and description was determined from the flora, vegetation and fauna survey report provided with the application (Morgan 2010).</p>

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 12 ha of native vegetation for the repair and maintenance of a diversion wall.

One hundred and ninety native plants, including eight weed species, were recorded within the 1,800 ha survey area that includes the application area (Morgan 2010). Overall the vegetation was in good to very good (Keighery 1994) condition with a low weed cover (Morgan 2010). Weed conditions may mitigate the spread of weeds.

The Beard vegetation types mapped within the areas under application are well represented in the bioregion. In

addition, within the Shire of Ashburton and the Pilbara bioregion 99.6% and 99.9% (Shepherd 2009) of pre-1750 extent of native vegetation remains, respectively.

No rare flora and two priority flora species have been recorded within 30 km of the areas under application. The closest record is *Helichrysum oligochaetum* (P1), located approximately 400m east of the areas under application. A flora survey undertaken in June 2010 recorded no rare and one priority (*Goodenia nuda*, P4) flora species (Morgan 2010). *Goodenia nuda* was recorded in one location, in the north-east corner of the survey area and appears to be scattered across the Pilbara bioregion (Morgan 2010). *Helichrysum oligochaetum* was not observed during the survey, but as there were very dry conditions at the time of the survey it is unlikely that herb species such as *Helichrysum oligochaetum* would be alive and healthy at the time of the survey (Morgan 2010). The applicant should avoid disturbance to these priority flora and other significant species.

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:
- Keighery (1994)
- Morgan (2010)
- Shepherd (2009)
GIS Databases:
- Interim Biogeographic Regionalisation of Australia
- Pre-European Vegetation
- SAC Bio Datasets (accessed 11/11/2010)

(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 within 50 km of the areas under application with one conservation significant species, the Rainbow bee-eater recorded during an opportunistic fauna survey in June 2010 (Morgan 2010).

Six major habitat units were defined within the 1,800 ha survey area (Morgan 2010). Overall the surveyed vegetation was considered to be in good to excellent (Keighery 1994) condition (Morgan 2010), with the application area in good to very good (Keighery, 1994) condition.

The Beard vegetation types mapped within the areas under application are well represented in the bioregion. In addition, within the Shire of Ashburton and the Pilbara bioregion 99.6% and 99.9% (Shepherd 2009) of pre-1750 extent of native vegetation remains, respectively.

Given the long and linear nature of the proposal and the high level of comparable habitat in the Shire and bioregion, 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:
- Keighery (1994)
- Morgan (2010)
- Shepherd (2009)
GIS Databases:
- Interim Biogeographic Regionalisation of Australia
- Pre-European Vegetation
- SAC Bio Datasets (accessed 11/11/2010)

(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 (Morgan 2010). Based on preferred habitats; it was considered this species has a low likelihood of occurring within the survey area (Morgan 2010). A flora and vegetation survey undertaken in June 2010 within a 1,800 ha survey area, which included the 12 ha of native vegetation under application, did not identify any rare flora species.

Therefore, the proposed clearing is not likely to be at variance to this Principle.

Methodology Reference:

(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

One threatened ecological community (TEC), Themeda grasslands on cracking clays, has been recorded within 50 km of the areas under application (Morgan 2010). A comparison of the vegetation identified during a flora and vegetation survey and the description of the TEC, confirmed that none of the vegetation within the 1,800 ha survey area, which included the areas under application, comprises or is necessary for the maintenance of a TEC (Morgan 2010).

Therefore, the proposed clearing is not likely to be at variance to this Principle.

Methodology Reference:
- Morgan (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 national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent 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 mapped within the areas under application retain more than this 30% threshold.

In addition, within the Shire of Ashburton and the Pilbara bioregion 99.6% and 99.9% (Shepherd 2009) of pre-1750 extent of native vegetation remains, respectively.

Given that the vegetation is well represented locally and regionally, the vegetation under application it is not significant as a remnant and given the current extent remaining, the landscape is not highly cleared.

Therefore, the clearing as proposed is not likely to be at variance to this Principle.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	Pre-European % in reserves/DEC managed lands
BIOREGION*				
Pilbara (P)	17,804,193	17,785,000	99.9	N/A
LOCAL GOVERNMENT AUTHORITY*				
Shire of Ashburton	10,086,658	10,050,099	99.6	15.5
BEARD VEGETATION ASSOCIATIONS*				
- 175 in P bioregion	507,035	507,006	99.9	4.8
- 644 in P bioregion	27,199	27,199	100	0.0
- 645 in P bioregion	84,670	84,670	100	0.0

*(Shepherd 2009)

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

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments Proposal is at variance to this Principle

The closest watercourses to the areas under application are Weelurnurra Creek and Fortescue River. Weelurnurra Creek has been extensively altered by the existing diversion wall that was constructed in the 1960s (Morgan 2010).

A flora and vegetation survey report (Morgan 2010) outlined that 'the vegetation types recorded in the survey area are considered to be typical of the river, creek and alluvial plains in the region'.

Given the close proximity to the watercourses and the presence of vegetation associated with a watercourse, the proposed clearing is at variance to this Principle.

It is noted that the proposed vegetation clearing will be restricted to the existing diversion wall and access tracks for repair and maintenance, areas that have been historically disturbed (Morgan 2010).

Methodology Reference:
- Morgan (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

This proposal is for the clearing of 12 ha of native vegetation for the repair and maintenance of a diversion wall over approximately 17 km. The areas under application predominately traverse the Urandy, River and Jurrawarrina Land Systems, which have low to moderate susceptibility to erosion (Morgan 2010).

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:
- Morgan (2010)

(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 closest conservation areas to the areas under application are Millstream Chichester National Park located 32 km north and Karijini National Park located 47 km south east.

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 closest watercourses to the areas under application are Weelurnurra Creek and Fortescue River. Weelurnurra Creek has been extensively altered by the existing diversion wall that was constructed in the 1960s (Morgan 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.

Therefore the proposed clearing is not likely to be at variance to this Principle.

Methodology Reference:
- Morgan (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 closest watercourses to the areas under application are Weelurnurra Creek and Fortescue River. Weelurnurra Creek has been extensively altered by the existing diversion wall that was constructed in the 1960s and the proposed works is directed at maintaining the water drainage system (Morgan 2010).

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 Reference:
- Morgan (2010)
GIS Databases:
- Hydrography, linear
- Rivers

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

Comments

This proposal is for the clearing of 12 ha of native vegetation for the repair and maintenance of a diversion wall.

The project area is located within the Millstream Water Reserve (Priority 2), and area gazetted under the Country Areas Water Supply Act 1947. Also within the Proclaimed Surface Water Area, Pilbara River and Tributaries; and any interference with bed and banks would require a licence from the Department of Water. Additionally the project area is located 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 all clearing activities should adhere to established codes of practice and best management practices should be implemented to prevent impacts to water quality.

A Flora, Vegetation and Fauna Survey Report (Morgan 2010) prepared for the applicant included seven recommendations to minimise the impacts to the vegetation, flora and fauna with the proposed works.

Lot 83 is located within Crown Lease 3114-1228. The Department of Regional Development and Lands has granted access to the land, with the consent of the pastoralist, for the purpose of inspecting, repairing and clearing the diversion wall (Hamersley Iron Pty Ltd 2010).

No submissions were received for this project.

Methodology References:
- Department of Water (2010)
- Hamersley Iron Pty Ltd (2010)
- Morgan (2010)
GIS Databases:
- Cadastre
- Public Drinking Water Source Areas (PDWSAs)
- RIWI Act, Areas
- RIWI Act, Groundwater Areas

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Department of Water (2010) Direct Interest Submission for Clearing Permit Application CPS 4005/1. Department of Water (Pilbara Region). DEC Ref A346980
- Hamersley Iron Pty Ltd (2010) Application for a Clearing Permit CPS 4005/1 and Supporting Information. Hamersley Iron Pty Ltd. DEC Ref A336365
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Morgan (2010) Flora, Vegetation and Fauna Survey for the Inspection and Clearing of Diversion Walls on Coolawayah Station IN Application for a Clearing Permit CPS 4005/1 and Supporting Information. Hamersley Iron Pty Ltd. DEC Ref A336365
- 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)