



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5741/1
Permit Holder:	Hamersley Iron Pty Ltd
Duration of Permit:	14 December 2013 – 14 December 2018

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 a waste water treatment plant.

2. Land on which clearing is to be done

Lot 120 on Deposited Plan 214456 (WICKHAM)

3. Area of Clearing

The Permit Holder must not clear more than 10.5 hectares of native vegetation within the area cross-hatched yellow on attached Plan 5741/1.

4. Clearing not authorised

The Permit Holder shall not clear any native vegetation unless the purpose for which the clearing is authorised is enacted within 3 months of the clearing being undertaken.

5. 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.

PART II – MANAGEMENT CONDITIONS

6. Weed control

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.

PART III - RECORD KEEPING AND REPORTING

7. Records must be kept

The Permit Holder must maintain the following records for activities done 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).

8. 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 7 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the previous calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June of each year.
- (c) Prior to 14 September 2018, the Permit Holder must provide to the CEO a written report of records required under condition 7 of this Permit where these records have not already been provided under condition 8(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;

weed/s means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in the former Department of Environment and Conservation Regional Weed Assessments, regardless of ranking ; or
- (c) not indigenous to the area concerned.

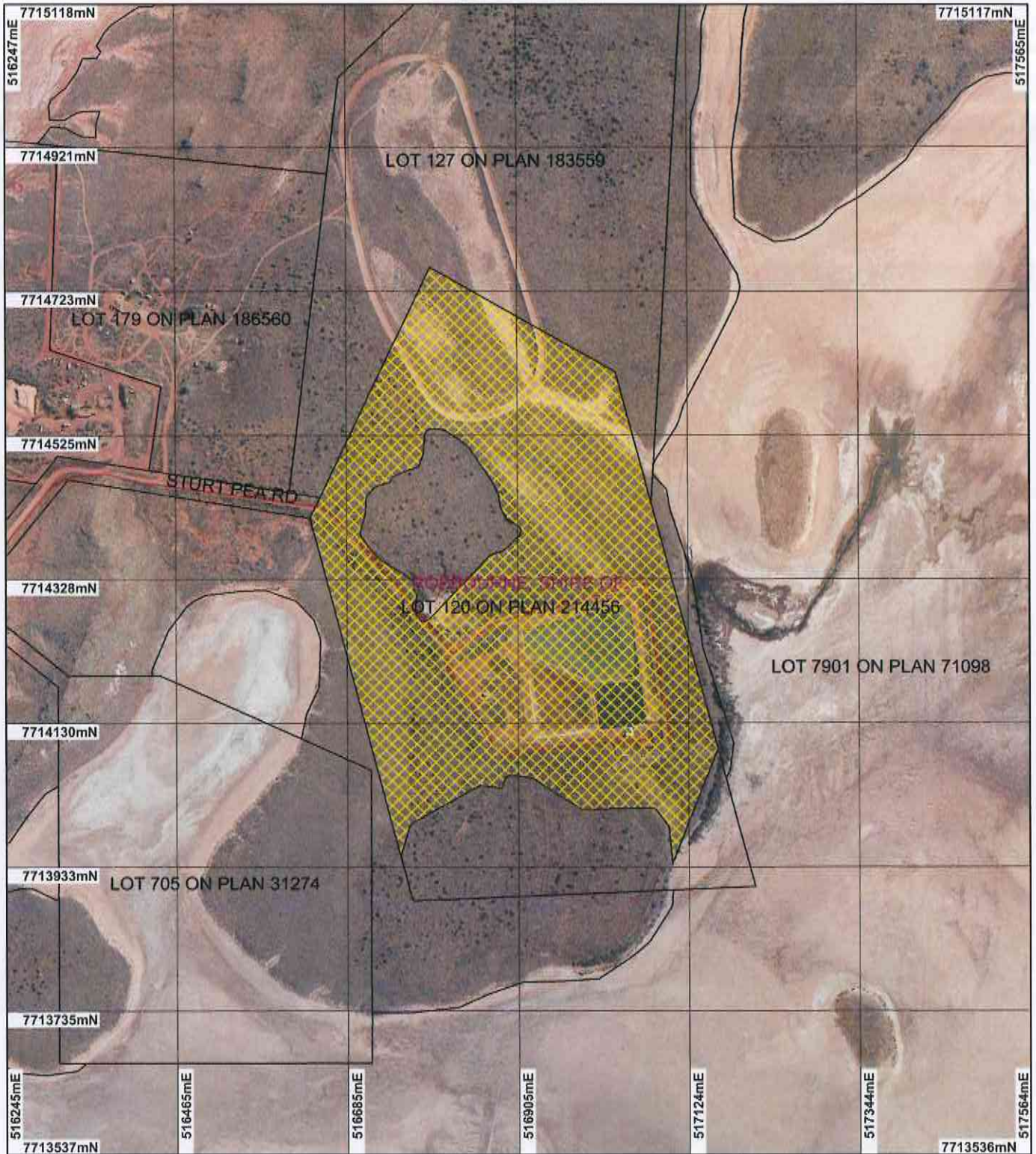


M Warnock
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

14 November 2013

Plan 5741/1



LEGEND

- | | |
|----------------------------------|---|
| Road Centreline | DEC Tenure |
| Aboriginal Sites of Significance | Clearing Instruments |
| Local Government Authorities_1 | Areas Approved to Clear |
| | Rosbourn 50cm Orthomosaic - Landgate 2007 |



Scale 1:6757
(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 14/11/13
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.



Government of Western Australia
Department of Environment Regulation

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1. Application details

1.1. Permit application details

Permit application No.: 5741/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Hamersley Iron Pty Ltd

1.3. Property details

Property: LOT 120 ON PLAN 214456 (WICKHAM 6720)
Local Government Area: Shire of Roebourne
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 14 November 2013

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 vegetation under application has been mapped as the following Beard vegetation associations (Shepherd et al, 2001):	The clearing consists of 10.5 hectares of native vegetation within Lot 120 on Deposited Plan 214456, Wickham, for the purpose of upgrading a waste water treatment plant.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The vegetation condition was determined through flora and fauna survey's submitted by the applicant (Rio Tinto 2013a).
157 (90 percent) - Hummock grasslands, grass steppe; hard spinifex <i>Triodia wiseana</i> .		To	
127 (10 percent) - Bare areas; mud flats.		Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	

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**
The application is to clear up to 10.5 hectares of native vegetation within Lot 120 on Deposited Plan 214456, Wickham, for the purpose of upgrading an existing waste water treatment plant.

Flora surveys of the application area (Rio Tinto 2013a) did not reveal any rare flora, priority flora, priority ecological communities or threatened ecological communities within the application area. Approximately 99 percent native vegetation remains in the local area (10 kilometre radius), therefore the application area is not likely to contain significant habitat for indigenous fauna.

Given the above and as a wastewater treatment plant already operates on the site, impacting the surrounding vegetation, the application is not likely to be at variance to this clearing principle.

Methodology References:
Rio Tinto (2013a)

GIS Datasets
- SAC Biodatasets (accessed September 2013)
- Pre-European vegetation

(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

The local area (10 kilometre radius) surrounding the application area is approximately 99 percent vegetated. Given this and its close proximity to an existing disturbance (the waste water treatment plant), the vegetation under application is not likely to contain significant habitat for conservation significant fauna.

A fauna survey of the application area did not reveal any critical habitat or microhabitat for priority or rare fauna (Rio Tinto 2013a).

Given the extent of similar vegetation in the local area, the application area does not form part of an ecological linkage for the movement of fauna and is not likely to form significant habitat for indigenous fauna.

The application is not likely to be at variance to this clearing principle.

Methodology Reference:
Rio Tinto (2013a)

GIS Datasets
- SAC Biodatasets (accessed September 2013)
- Pre-European vegetation

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments Proposal is not at variance to this Principle

No rare flora has been recorded within 200 kilometres of the application area.

Flora surveys of the application area did not reveal any rare flora (Rio Tinto 2013a).

Given the above, the proposed clearing is not at variance to this clearing principle.

Methodology Reference:
Rio Tinto (2013a)

GIS Datasets
- SAC Biodatasets (accessed September 2013)

(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 at variance to this Principle

The closest threatened ecological community is located over 200 kilometres away from the application area. Given this the application is not likely to be necessary for the maintenance of a threatened ecological community and is not at variance to this clearing principle.

Methodology GIS Datasets
- SAC Biodatasets (accessed September 2013)

(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 at variance to this Principle

Aerial photography (Roebourne 50cm Orthomosaic - Landgate 2007) indicates the local area (10 kilometre radius) is approximately 95 percent vegetated.

The IBRA Bioregion (Pilbara) and the local government authority (Shire of Roebourne) retain approximately 99 percent of their respective pre-European vegetation extents (Government of Western Australia, 2013).

The application area is mapped as Beard Vegetation Associations 127 and 157 which retain approximately 90 percent and 99 percent of their pre-European vegetation extent within the Pilbara IBRA Bioregion respectively.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 percent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). As all mapped vegetation associations and the local area retain significantly above this level the application is not at variance to this clearing principle.

	Pre-European (ha)	Current Extent Remaining (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion* Pilbara	17 808 657	17 733 584	99	8
Shire* Shire of Roebourne	1 529 965	1 500 851	98	1
Beard Vegetation Association in Bioregion* Abydos Plain-Chichester (157)		199 832	198 409	99
Abydos Plain (127)	177 750	159 595	90	0

Methodology

References:

*Government of Western Australia (2013)
Commonwealth of Australia (2001)

GIS Databases:

- NLWRA, Current extent of Native Vegetation
- Pre-European Vegetation
- Roebourne 50cm Orthomosaic - Landgate 2007

(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 application area falls adjacent to mudflats, and intertidal vegetation has been identified within the application area (Rio Tinto 2013a). Given this, the vegetation under application is growing in association with a watercourse or wetland and the application is at variance to this clearing principle.

Methodology

References:

Rio Tinto (2013a)

GIS Datasets:

- Hydrography linear
- Roebourne 50cm Orthomosaic - Landgate 2007

(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 application falls within a littoral land system and is therefore susceptible to wind and water erosion (Rio Tinto 2013a).

The majority of the application area will be utilised for permanent infrastructure relating to the waste water treatment plant, alleviating the risk of erosion. Where temporary clearing is required the applicant has stated that they will utilise pre-disturbed area, adjacent to pre-existing access tracks and away from the intertidal areas in order to minimise the impact to sensitive area (Rio Tinto 2013a).

As wind or water erosion may take place during the construction phase of the project, the application may be at variance to this clearing principle. This impact is however, likely to be short term. Commencing works within three months of vegetation being cleared, for the purpose for which it was cleared, is likely to limit potential erosion.

Methodology

References:

Rio Tinto (2013a)

(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

All Department of Parks and Wildlife managed conservation reserves within 30 kilometres of the application area are located off the coast. Given this, clearing the vegetation under application is not likely to be at variance to this clearing principle.

Methodology

GIS datasets:

- DEC managed lands

(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 may be at variance to this Principle

The application falls adjacent to a mudflat, and intertidal vegetation has been identified within the application area (Rio Tinto 2013a).

As the local area (10 kilometres) surrounding the application area is approximately 99 percent vegetated the clearing is not likely to have an impact on groundwater. The Department of Water have advised that the clearing is unlikely to have an impact on the quantity or quality of groundwater (DoW, 2013).

The majority of the application area will be utilised for permanent infrastructure. Where temporary clearing is required the applicant will utilise pre-disturbed area, adjacent to pre-existing access tracks and away from the intertidal areas in order to minimise the impact to sensitive area (Rio Tinto 2013a). Although clearing the vegetation may cause temporary sedimentation, this impact is likely to be temporary and minimal.

Given the above, the application may be at variance to this clearing principle.

Methodology References:
Rio Tinto (2013a)
DoW (2013)

(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

As the application area falls adjacent to, and contains an intertidal, there is an inherent risk of flooding. This risk is not likely to be exacerbated as an existing waste water treatment plant already operates on the site.

Methodology GIS Databases:
- Pre-European Vegetation
- Roebourne 50cm Orthomosaic - Landgate 2007

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

Comments

The application is for the purpose of upgrading a waste water treatment plant. This plant has the potential to significantly impact the surrounding marine and near shore environment. A prescribed premises licence is required to undertake these works and is currently being sought (Rio Tinto 2013a).

Although a flora report identified intertidal vegetation, given its infrequent inundation and the species present it is not thought to fall within the definition of "Benthic Primary Producer Habitat" defined by the Environmental Protection Authority, Environmental Assessment Guideline Number 3 (Rio Tinto, 2013b).

The application area forms part of the infrastructure supporting the Wickham south stage one subdivision. The Shire of Roebourne (2012) granted planning approval for these civil works on 2 July 2012, referencing the requirement for waste services. The Shire has been notified of the proposed clearing and replied with no comment.

The proponent has obtained consent from Water Corporation, as the land holder, to undertake works in relation to native vegetation clearing within the reserve (Water Corporation, 2013).

The Department of Water have advised that any groundwater abstraction will require a licence (DoW, 2013).

Methodology No Aboriginal Sites of Significance are present within the application area.
References:
DoW (2013a)
Rio Tinto (2013a)
Rio Tinto (2013b)
Shire of Roebourne (2012)

GIS Databases:
- Aboriginal Sites of Significance

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DoW (2013) Authority for Hamersley Iron to undertake clearing. Received 13 September 2013. Department of Water, Western Australia. (DEC Ref: A675597).
- DPaW (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed August 2013
- Government of Western Australia. (2013). 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Rio Tinto (2013a) Clearing Permit Application CPS 5741/1 and supporting information. (DEC Ref: A659603; A680821).
- Rio Tinto (2013b) Letter to the Department of Environment Regulation addressing the potential of the application area to contain Benthic Primary Producer Habitat. Dated 1 November 2013. CPS 5741/1 (DEC Ref: A692014).
- 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.
- Shire of Roebourne (2012) Copy of planning approval for Wickham south stage one subdivision civil works. Granted 02/07/2012. Provided by Rio Tinto 13/08/2012. (DEC Ref: A534377).