



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4948/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Cliffs Asia Pacific Iron Ore Pty Ltd

1.3. Property details

Property: Mining Lease 77/990
Local Government Area: Shire of Yilgarn
Colloquial name: Koolyanobbing Administration Area Upgrade

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1		Mechanical Removal	Administration Area Upgrade

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 10 May 2012

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
Beard vegetation associations have been mapped for the whole of Western Australia and are useful to look at vegetation in a regional context. One Beard vegetation association has been mapped within the application area: Beard vegetation association 141: Medium woodland; York gum, salmon gum & gimlet (GIS Database; Shepherd, 2009). Cliffs Asia Pacific Iron Ore Pty Ltd (2012) conducted a vegetation and flora survey of the application area on 28 February 2012, and described one broad vegetation community within the application area: Remnant <i>Eucalyptus salubris</i> (Gimlet) open woodland over Chenopod understory. Heavily infested with weed species.	Cliffs Asia Pacific Iron Ore Pty Ltd is proposing to clear up to 1 hectare of native vegetation for the purpose of upgrading the administration area. The vegetation will be mechanically cleared.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).	The application area is located in the Southern Cross subregion of Western Australia and is situated approximately 0.5 kilometres east of the Koolyanobbing town site (GIS Database). The vegetation condition was derived from a vegetation survey conducted by Cliffs Asia Pacific Iron Ore Pty Ltd (2012).

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 areas occur within the Southern Cross subregion of the Coolgardie Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is characterised by subdued relief, comprising gently undulating uplands dissected by broad valleys with bands of low greenstone hills. Valleys have Quaternary duplex and gradational soils, and include chains of saline playa-lakes. Diverse *Eucalyptus* woodlands (*Eucalyptus salmonophloia*, *E. salubris*, *E. transcontinentalis*, *E. longicornis*) rich in endemic eucalypts occur around these salt lakes, on the low greenstone hills, valley alluvials and broad plains of calcareous earths. The salt lake surfaces support dwarf shrublands of samphire. The granite basement outcrops at mid-levels in the landscape and supports swards of *Borya constricta*, with stands of *Acacia acuminata* and *Eucalyptus loxophleba*. Upper levels in the landscape are the eroded remnants of a lateritic duricrust yielding yellow sandplains, gravelly sandplains and laterite breakaways. Mallees (*Eucalyptus leptopoda*, *E. platycorys* and *E. scyphocalyx*) and scrub-heaths (*Allocasuarina comiculata*, *Callitris preissii*, *Melaleuca uncinata* and *Acacia beauverdiana*) occur on these uplands, as well as on sand lunettes associated with playas along the broad valley floors, and sand sheets around the granite outcrops. The scrubs are rich in endemic acacias and Myrtaceae (CALM, 2002).

The vegetation within the application area is broadly mapped as Beard vegetation association 141, which has approximately 97% of its pre-European vegetation extent remaining in the Coolgardie bioregion (Shepherd, 2009; GIS Database). Cliffs Asia Pacific Iron Ore Pty Ltd (2012) conducted a flora and vegetation survey over the application area during 28 February 2012. A total of 21 vascular plant taxa from 11 genera were recorded within the application area. The flora and vegetation survey identified one vegetation community within the application area (Cliffs Asia Pacific Iron Ore Pty Ltd, 2012). The condition of the vegetation type was classified as 'degraded' (Keighery, 1994; GIS Database).

A search of the Department of Environment and Conservation Declared Rare and Priority Flora databases revealed that no Rare Flora species and no Priority species may potentially occur within a 10 kilometre radius of the application area (DEC, 2012). Cliffs Asia Pacific Iron Ore Pty Ltd (2012) identified no Threatened flora and no Priority flora species within the application area. No Threatened Ecological Communities or Priority Ecological Communities were recorded within the application area (GIS Database).

Five introduced flora species, Prickly Paddy Melon (*Cucumis myriocarpus*), Century Plant (*Agave americana*), Onion Weed (*Asphodelus fistulosus*), Wards Weed (*Carrichtera annua*) and Prickly Pear (*Opuntia stricta*) were recorded from the application area (Cliffs Asia Pacific Iron Ore Pty Ltd, 2012). Care must be taken to ensure that the proposed clearing activities do not spread or introduce weed species to non-infested areas. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

One fauna habitat type was identified by Cliffs Asia Pacific Iron Ore Pty Ltd (2012) within the application area (GIS Database). This habitat is considered to be common and widespread within the subregion and faunal assemblages are unlikely to be different to that found in similar habitat located elsewhere in the region (Bamford Consulting Ecologists, 2007; GIS Database). There were no unique or significant faunal assemblages found within the application area (GIS Database). The clearing of 1 hectare of native vegetation is unlikely to have a significant impact in a regional and local context.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Bamford Consulting Ecologists (2007)
CALM (2002)
Cliffs Asia Pacific Iron Ore Pty Ltd (2012)
DEC (2012)
Keighery (1994)
Shepherd (2009)
GIS Database:
- IBRA WA (Regions - Subregions)
- Pre-European vegetation
- Threatened Ecological Sites Buffered

(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**
No targeted fauna surveys have been conducted over the application area. No fauna were observed during the flora survey conducted by Cliffs Asia Pacific Iron Ore Pty Ltd (2012). The application area is significantly degraded and unlikely to provide habitat or a food source specific for any conservation significant fauna (Cliffs Asia Pacific Iron Ore Pty Ltd, 2012). Cliffs Asia Pacific Iron Ore (2012) identified nearby vegetation in the local area that is in significantly healthier condition in which fauna species are more likely to inhabit.

Bamford Consulting Ecologists (2007) has previously surveyed the application area and surroundings and described the habitat type as 'plains'. This habitat type is considered to be common and widespread within the subregion and faunal assemblages are unlikely to be different to that found in similar habitat located elsewhere in the region (Bamford Consulting Ecologists, 2007).

Cliffs Asia Pacific Iron Ore Pty Ltd (2012) identified no significant faunal assemblages within the application area. The proposed clearing of 1 hectare of native vegetation is not likely to impact critical feeding or breeding habitat for any conservation significant fauna species as the application area does not contain significant faunal habitats.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Bamford Consulting Ecologists (2007)
Cliffs Asia Pacific Iron Ore Pty Ltd (2012)

(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

According to available databases, there are no records of Threatened Flora within the application area (GIS Database). A search of the Department of Environment and Conservation Declared Rare and Priority Flora databases identified no Threatened Flora species as occurring within a 20 kilometre radius of the application area (DEC, 2012).

Cliffs Asia Pacific Iron Ore Pty Ltd (2012) conducted a vegetation and flora survey of the application area on the 28 February 2012. No Threatened Flora was recorded within the survey area.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Cliffs Asia Pacific Iron Ore Pty Ltd (2012)
DEC (2012)
GIS Database:
- Threatened Rare and Priority Flora List

(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

A search of the available databases shows that there are no Threatened Ecological Communities (TEC's) situated within 100 kilometres of the application area (GIS Database).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Database
- Threatened Ecological Sites Buffered

(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

The application area falls within the Coolgardie IBRA bioregion (GIS Database). The vegetation within the application area is recorded as:

Beard vegetation association 141: Medium woodland; York gum, salmon gum & gimlet (Shepherd, 2009; GIS Database).

According to Shepherd (2009), Beard vegetation association 141 retains approximately 82% of its pre-European extent. Therefore, the area proposed to be cleared is not a significant remnant of native vegetation in an area that has been extensively cleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - Coolgardie	12,912,204	12,707,873	~98.42	Least Concern	10.87
Beard vegetation associations - State					
141	1,158,760	959,027	~82.76	Least Concern	12.02
Beard vegetation associations - Bioregion					
141	883,086	859,069	~97.28	Least Concern	15.61

* Shepherd (2009)

** Department of Natural Resources and Environment (2002)

Based on the above, the proposed clearing is not at variance to this Principle.

Methodology Department of Natural Resources and Environment (2002)
Shepherd (2009)
GIS Database:
- IBRA WA (regions - subregions)
- 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 not at variance to this Principle

According to available databases, there are no watercourses or wetlands within the application area (GIS Database). The vegetation within the application area is not considered to be growing in association with any watercourse or wetland.

Based on the above, the proposed clearing is not at variance to this Principle.

Methodology GIS Database:
- Geodata, Lakes
- Hydrography, Linear

(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

Cliffs Asia Pacific Iron Ore Pty Ltd has applied to clear up to 1 hectare of native vegetation for the purpose of upgrading their Koolyanobbing administrative area. The proposed clearing activities are within an already degraded area adjacent to administrative buildings (Cliffs Asia Pacific Iron Ore Pty Ltd, 2012). Given the nature and scale of the proposed activities, the clearing of 1 hectare of native vegetation is not likely to result in appreciable land degradation.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Cliffs Asia Pacific Iron Ore Pty Ltd (2012)

(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 application area is not located within any conservation areas (GIS Database). The nearest conservation area is the proposed Jaurdi Conservation Park, located approximately 10 kilometres east of the application area (GIS Database). Given the distance separating the proposed Jaurdi Conservation Park and the application area, the proposed clearing is not likely to impact the environmental values of the conservation area.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

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 application area is not located within a Public Drinking Water Source Area (GIS Database). The application areas are located within the proclaimed Goldfields groundwater area under the *Rights in Water and Irrigation Act 1994* (GIS Database). Any groundwater extraction and/or taking or diversion of surface water for the purposes other than domestic and/or stock watering is subject to licence by the Department of Water.

There are no permanent watercourses or water bodies within the application area (GIS Database). Any surface water within the application areas is likely to only remain for short periods following significant rainfall events. The proposed clearing is not likely to cause deterioration in the quality of any surface water within or outside of the application areas.

Given the low impact nature of the proposed clearing activities, the proposed clearing is not likely to cause deterioration in the quality of any underground water.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Database:
- Geodata, Lakes
- Groundwater Salinity, Statewide
- Hydrography, Linear
- Public Drinking Water Source Areas
- RIWI Act, Groundwater Areas

(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 application area experiences an arid to semi-arid warm Mediterranean climate (CALM, 2002), where the annual evaporation rate exceeds the annual rainfall (BoM, 2012). Any surface water resulting from normal rain events is expected to be short lived.

The application areas are located within the Swan/Avon Yilgarn catchment area which covers a total area of approximately 583,604,500 hectares (GIS Database). The proposed clearing of 1 hectare is not likely to cause or exacerbate the incidence or intensity of floods in the catchment or local areas.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology BoM (2012)
CALM (2002)
GIS Database:
- Hydrographic Catchments ? Catchments

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

Comments

There is no Native Title claim over the area under application. The mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There is no registered Aboriginal Site of Significance within the application area (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal sites of significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment and Conservation and the Department of Water, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

The clearing permit application was advertised on 2 April 2012 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the proposed clearing.

Methodology GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims - Determined by the Federal Court

4. References

- Bamford Consulting Ecologists (2007) Fauna assessment of the Koolyanobbing Area. Unpublished report prepared by Bamford Consulting Ecologists Pty Ltd for Portman Iron Ore Ltd, Perth, Western Australia.
- BoM (2012) Climate Statistics for Australian Locations. A Search for Climate Statistics for Southern Cross Airfield, Australian Government Bureau of Meteorology, viewed 19 April 2012, <http://reg.bom.gov.au/climate/averages/tables/cw_012320.shtml>.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Coolgardie 2 (COO2 - Southern Cross subregion) Department of Conservation and Land Management, Western Australia.
- Cliffs Asia Pacific Iron Ore Pty Ltd (2012) Koolyanobbing Administration Area Upgrade - Environmental Protection Act 1986 (WA) Application for Clearing Permit (Purpose Permit), March 2012.
- DEC (2012) NatureMap - Mapping Western Australia Biodiversity, Department of Environment and Conservation, viewed 19 April 2012, <<http://naturemap.dec.wa.gov.au>>.
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- 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

Acronyms:

BoM Bureau of Meteorology, Australian Government
CALM Department of Conservation and Land Management (now DEC), Western Australia
DAFWA Department of Agriculture and Food, Western Australia

DEC	Department of Environment and Conservation, Western Australia
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DEC), Western Australia
DIA	Department of Indigenous Affairs
DLI	Department of Land Information, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DoE	Department of Environment (now DEC), Western Australia
DoIR	Department of Industry and Resources (now DMP), Western Australia
DOLA	Department of Land Administration, Western Australia
DoW	Department of Water
EP Act	Environmental Protection Act 1986, Western Australia
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
RIWI Act	Rights in Water and Irrigation Act 1914, Western Australia
s.17	Section 17 of the Environment Protection Act 1986, Western Australia
TEC	Threatened Ecological Community

Definitions:

{Atkins, K (2005). *Declared rare and priority flora list for Western Australia, 22 February 2005*. Department of Conservation and Land Management, Como, Western Australia} :-

- P1** **Priority One - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P2** **Priority Two - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P3** **Priority Three - Poorly Known taxa:** taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.
- P4** **Priority Four – Rare taxa:** taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.
- R** **Declared Rare Flora – Extant taxa (= Threatened Flora = Endangered + Vulnerable):** taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.
- X** **Declared Rare Flora - Presumed Extinct taxa:** taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

{Wildlife Conservation (Specially Protected Fauna) Notice 2005} [Wildlife Conservation Act 1950] :-

- Schedule 1** **Schedule 1 – Fauna that is rare or likely to become extinct:** being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.
- Schedule 2** **Schedule 2 – Fauna that is presumed to be extinct:** being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.
- Schedule 3** **Schedule 3 – Birds protected under an international agreement:** being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.
- Schedule 4** **Schedule 4 – Other specially protected fauna:** being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

{CALM (2005). *Priority Codes for Fauna*. Department of Conservation and Land Management, Como, Western Australia} :-

- P1** **Priority One: Taxa with few, poorly known populations on threatened lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P2** **Priority Two: Taxa with few, poorly known populations on conservation lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of

habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.

- P3** **Priority Three: Taxa with several, poorly known populations, some on conservation lands:** Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P4** **Priority Four: Taxa in need of monitoring:** Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.
- P5** **Priority Five: Taxa in need of monitoring:** Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

Categories of threatened species (*Environment Protection and Biodiversity Conservation Act 1999*)

- EX** **Extinct:** A native species for which there is no reasonable doubt that the last member of the species has died.
- EX(W)** **Extinct in the wild:** A native species which:
(a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or
(b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
- CR** **Critically Endangered:** A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
- EN** **Endangered:** A native species which:
(a) is not critically endangered; and
(b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
- VU** **Vulnerable:** A native species which:
(a) is not critically endangered or endangered; and
(b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
- CD** **Conservation Dependent:** A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.

