Government of Western Australia
Department of Mines and Petroleum

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3864/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **KMG Logistics Pty Ltd**

1.3. Property details

Property: Miscellaneous Licences 80/56 and 80/59
Local Government Area: Shire of Wyndham-East Kimberley
Colloquial name: Ridges Iron Ore Project – Barge Loading Facility

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4.31		Mechanical Removal	Constructing a barge loading facility and associated infrastructure

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 at a 1:250,000 scale for the whole of Western Australia. Two Beard Vegetation Associations have been mapped within the application area (GIS Database; Shepherd, 2007). 127: Bare areas; mud flats; and 911: Grasslands, high grass savanna woodland; bloodwood over upland tall grass & curly Spinifex. The application area was surveyed by Animal Plant Mineral on 14 August 2009 and 7 February 2010. The following vegetation types were identified within the application area. Community F: Low Forest of *Cochlospermum fraseri, Melaleuca alsophila, Bauhinia cunninghamii* and *Gyrocarpus americanus* subsp. *pachyphyllus* over Closed Bunch Grassland of *Sorghum* sp. and *Chrysopogon fallax* with various annual forbs. This community was found along the mid-section of the corridor to the dam. Community G1: Grassland of *Triodia bitextura* and *Xerochloa imberbis* with occasional annual forbs. This community was restricted to an area of scree and rubble on the landward side of the Option 3 mudflats. Community S1: Scrub and Low Shrubland of *Avicennia marina* over Grassland of *Sporobolus virginicus* and Low Shrubland *Tecticornia indica*. This vegetation fringed the both the inland and seaward margins of the bare mudflats, grading into Community T1 nearer the shore. Community S2: Open Scrub of *Melaleuca alsophila* over Closed Bunch Grassland of *Chrysopogon fallax* and *Sorghum* sp. with various annual forbs. This community occupied well drained ground in the south-east of the Option 3 stockpile and infrastructure area including part of the corridor to the dam.	KMG Logistics Pty Ltd (KMG) has applied to clear up to 4.31 hectares of native vegetation for the purpose of constructing a barge loading facility and associated infrastructure. Vegetation will be cleared for an ore stockpile/offload area, conveyor, water pipe, access road and dam extension. The vegetation will be cleared using bulldozers or other heavy machinery. The vegetation and topsoil will be stockpiled for use in rehabilitation.	Pristine: No obvious signs of disturbance (Keighery, 1994). To Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).	Vegetation condition was assessed during the flora and vegetation survey by Animal Plant Mineral (2010).

Community T1: Thicket of *Aegialitis annulata, Avicennia marina, Aegiceras corniculatum* and *Ceriops tagal*. These mangrove thickets were recorded on the mudflats bordering the West Arm Estuary.

Community T2: Thicket of *Cochlospermum fraseri, Terminalia canescens* and *Wrightia saligna* over Closed Bunch Grassland of *Triodia bitextura* and *Sorghum* sp. with other minor annual forbs and grasses. This community was found growing around the dam in the south-east of the survey area.

Community D: This community incorporates vegetation types which were severely degraded by weed infestations. They were found on higher ground to the landward side of the mudflats and often showed signs of multiple disturbances from vehicles and rubbish dumping.

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 area is located within the Victoria Bonaparte subregion of the Victoria Bonaparte Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion covers an area of approximately 1,884,289 hectares and comprises a high diversity of vegetation units including mangroves, saline tidal mudflats, coastal dune communities, open woodlands, grassy woodlands and tussock grasslands (CALM, 2002).

The application area is located partly within the Parry Floodplain which is listed in the "Directory of Important Wetlands of Australia" and considered an Environmentally Sensitive Area (GIS Database; Environment Australia, 2001). The remaining portion of the clearing application area is located adjacent to the Parry Floodplain (GIS Database). The Parry Floodplain covers an area of approximately 9,000 hectares and is characterised by seven inland wetland environments which support a high diversity of marine, terrestrial and mudflat/floodplain vegetation and faunal communities (Environment Australia, 2001; DEC, 2010). It is noted that the application area covers a very minor area (0.27 hectares) of this sensitive ecosystem.

Seven vegetation communities were recorded within the application area and the condition of the vegetation ranged from 'Pristine' to 'Degraded' (Animal Plant Mineral, 2010). A total of 76 flora taxa from 64 genera and 32 families, including 11 introduced (weed) species were recorded within the application area (Animal Plant Mineral, 2010). No Threatened Ecological Communities (TECs), Priority Ecological Communities (PECs) or Declared Rare Flora were identified (Animal Plant Mineral, 2010). One Priority 3 flora taxa, *Brachychiton incanus*, was recorded from within the application area, however this species is not restricted to the application area (Animal Plant Mineral, 2010; Western Australian Herbarium, 2010).

Approximately 0.27 hectares of native vegetation will be cleared within the Parry Floodplain (GIS Database), and the vegetation has been mapped by Animal Plant Mineral (2010) as communities T1 and S1. These vegetation communities have been recorded outside of the application area (Animal Plant Mineral 2010), and analysis of aerial imagery demonstrates that similar landform and hydrological features occur throughout the local area and wider Parry Floodplain area which are likely to support similar vegetation communities (GIS Database). The remaining vegetation proposed to be cleared is located adjacent to the Parry Floodplain (GIS Database), and these vegetation communities are not likely to be restricted to the application area.

Whilst the vegetation may form part of an ecosystem which comprises a high level of biological diversity, the proposed clearing is not likely to significantly impact on the biodiversity values of the Parry Floodplain or the local area.

The Department of Environment and Conservation (DEC) has reviewed the potential impact of the proposed clearing on the biodiversity values of the Parry Floodplain wetland and does not object to the proposed clearing (DEC, 2010). The proponent has committed to developing a Construction and Operational Management Plan which will be reviewed by the DEC, prior to the commencement of clearing and construction of the barge facility (KMG, 2010).

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

Methodology

Animal Plant Mineral (2010)
CALM (2002)
DEC (2010)
Environment Australia (2001)
KMG (2010)
Western Australian Herbarium (2010)
GIS Database:

- ANCA, Wetlands
- Clearing Regulations - Environmentally Sensitive Areas
- Hydrography, linear
- IBRA WA (Regions - Sub Regions)
- Wyndham Townsite 20cm Orthomosaic - Landgate 2007

(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 application area is partly located within the Parry Floodplain which is listed in the "Directory of Important Wetlands of Australia" (GIS Database). The Parry Floodplain covers an area of approximately 9,000 hectares and is characterised by seven inland wetland environments which support a high diversity of fauna habitats (Environment Australia, 2001). Aerial imagery demonstrates that part of the application area is located over river bank, mud flat and seasonally intermittent drainage line land units (GIS Database). The remaining area under application is located adjacent to the Parry Floodplain area (GIS Database).

Fauna habitat was assessed during a biological assessment of the application area during August 2009 (Animal Plant Mineral, 2009). Animal Plant Mineral (2010) confirmed that the areas within the Parry Floodplain which comprised of mangrove and mudflat communities were considered to be in 'Pristine' to 'Excellent' condition. These areas represent several of the wetland types which characterise and contribute to the high environmental value of the Parry Floodplain system.

The mangrove and mudflat habitat within the application area may support suitable foraging habitat for Saltwater Crocodile (*Crocodylus porosus*) listed under Schedule 4 - Other Specially Protected Fauna, although Animal Plant Mineral (2009) confirm that the application area does not contain suitable nesting habitat. Rakali (Water Rat) (*Hydromys chrysogaster)* listed as Priority 4 (DEC), occupies habitat in the vicinity of permanent water including fresh, brackish marine environments (DEC, 2010). This species may also utilise the mangrove and mudflat habitats within or adjacent to the application area for nesting or foraging (Animal Plant Mineral 2009; KMG, 2010).

Animal Plant Mineral (2010) determined that the vegetation communities and fauna habitats are not likely to be restricted to the application area. Aerial imagery confirms the likely availability of similar landforms and hydrological features outside of the application area which are likely to support similar fauna habitats. These areas will not be disturbed by the proposed clearing activities. The vegetation is not likely to support restricted or significant habitat for fauna species, including the Saltwater Crocodile and Water Rat.

Parry Lagoons Nature Reserve and Ord River Nature Reserve are located approximately 11 kilometres south-east and 15 kilometres east of the application area respectively (GIS Database). The vegetation under application does not form part of a remnant of native vegetation, or represent an important ecological linkage to these nature reserves.

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

Methodology

Animal Plant Mineral (2009)
Animal Plant Mineral (2010)
DEC (2010)
Environment Australia (2001)
KMG (2010)
GIS Database:
- ANCA, Wetlands
- DEC Tenure
- Hydrography, linear
- Wyndham Townsite 20cm Orthomosaic - Landgate 2007
- Wyndham 50cm Orthomosaic - Landgate 2007

(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 Declared Rare Flora species within the application area (GIS database).

No DRF were recorded during the flora and vegetation survey by Animal Plant Mineral (2009).

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

Methodology

Animal Plant Mineral (2009)
GIS Database:
- Declared 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

According to available databases there are no Threatened Ecological Communities (TEC's) within the application area (GIS database).

No TEC's were identified during the flora and vegetation survey of the application area and surrounding vegetation (Animal Plant Mineral, 2009; Animal Plant Mineral, 2010).

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

Methodology

Animal Plant Mineral (2009)
Animal Plant Mineral (2010)
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 is located within the Victoria Bonaparte bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Shepherd (2007) report that approximately 98.8% of the pre-European vegetation remains within the Victoria Bonaparte bioregion (see table below).

The vegetation within the application area is broadly mapped as Beard Vegetation Associations 127: Bare areas; mud flats and 911: Grasslands, high grass savanna woodland; bloodwood over upland tall grass & curly spinifex (GIS Database; Shepherd, 2007). According to Shepherd (2007) approximately 98.6% and 100% of Beard Vegetation Associations 127 and 911 remain within the Victoria Bonaparte bioregion respectively.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion – Victoria Bonaparte	1,871,372	1,848,352	~98.8	Least Concern	~6.0
Beard veg assoc. – State					
127	742,644	719,966	~96.9	Least Concern	~8.0
911	41,558	41,558	~100	Least Concern	~0.0
Beard veg assoc. – Bioregion					
127	171,433	169,055	~98.6	Least Concern	~31.0
911	41,558	41,558	~100	Least Concern	~0.0

* Shepherd (2007)
** Department of Natural Resources and Environment (2002)

The vegetation within the application area is not a significant remnant of native vegetation within an area that has been extensively cleared.

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

Methodology

Department of Natural Resources and Environment (2002)
Shepherd (2007)
GIS Database
- IBRA WA (Regions - Sub Regions)
- 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 application area is partly located within the Parry Floodplain which is listed in the "Directory of Important Wetlands of Australia" (GIS Database). The Parry Floodplain covers an area of approximately 9,000 hectares and is considered the following type of wetland (Environment Australia, 2001):

B1: Permanent rivers and streams; includes waterfalls;
B2: Seasonal and irregular rivers and streams;
B4: Riverine floodplains; includes river flats, flooded river basins, seasonally flooded grassland, savanna and palm savanna;
B6: Seasonal/intermittent freshwater lakes (> 8 hectares), floodplain lakes;
B10: Seasonal/intermittent freshwater ponds and marshes on inorganic soils; includes sloughs, potholes; seasonally flooded meadows, sedge marshes;
B14: Freshwater swamp forest; seasonally flooded forest, wooded swamps; on inorganic soils; and
B17: Freshwater springs, oases and rock pools.

The criteria for inclusion includes:

1: It is a good example of a wetland type occurring within a biogeographic region in Australia;
2: It is a wetland which plays an important ecological or hydrological role in the natural functioning of a major wetland system/complex;
3: It is a wetland which is important as the habitat for animal taxa at a vulnerable stage in their life cycles, or provides a refuge when adverse conditions such as drought prevail;
4: The wetland supports 1% or more of the national populations of any native plant or animal taxa; and
6: The wetland is of outstanding historical or cultural significance.

The clearing proposal will involve the clearing of 0.27 hectares of native vegetation for a causeway within the Parry Floodplain (GIS Database; KMG, 2010). A further 2.96 hectares of native vegetation will be cleared immediately adjacent to a mudflat zone (comprising no native vegetation) of the Parry Floodplain for a stockpile area, workshop and water tank (GIS Database; KMG, 2010). This vegetation is likely to contribute to a buffer area to the Parry Floodplain. The remaining 1.08 hectares of native vegetation under application does not growing in association with the Parry Floodplain.

Whilst this proposal involves minor clearing, the vegetation forms part of the Parry Floodplain which comprises high environmental value. However, the proposed clearing is not likely to significantly impact on the biodiversity values of the Parry Floodplain or the local area.

Based on the above, the proposed clearing is at variance to this Principle.

Methodology Environment Australia (2001)
KMG (2010)
GIS Database:
- ANCA, Wetlands
- Hydrography, linear

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments

Proposal may be at variance to this Principle

The soil of the application area comprises of heavy tidal clays overlying unconsolidated weathered sandstone and basal unweathered shale (KMG, 2010). The sandstone and shale are outcropping along the shoreline surrounding the floodplain and dip gradually below the dark grey to black tidal clays to a depth of 8 - 10 metres below the surface at the low water mark (KMG, 2010). The dominance of sodium chloride in the seawater results in the tidal clays having a very high sodicity, and subsequently they are structurally unstable and dispersive (KMG, 2010). KMG has applied to clear approximately 0.27 hectares of native vegetation that is growing within the shoreline and floodplain (KMG, 2010). Due to the fine grained nature of the soil particles the area may be subject to wind and/or water erosion.

KMG (2010) has proposed the following management strategies to mitigate potential erosion:
- Minimise clearing requirements wherever possible;
- Ensure stockpiles and infrastructure is situated above the high tide mark;
- Installation of culverts to avoid interruption of waterways and sediments traps for the stockpile area;
- Utilise water trucks for dust suppression; and
- Ensure stockpiles of topsoil, subsoil and vegetative material avoid impacting on surface drainage lines.

Geochemical characterisation of each of the dominant soil units (tidal clays, sandstone and shale) has identified that all members contain varying amounts of potential acid sulfate soils (KMG, 2010). The surface layers of the tidal clays, which experience considerable fluctuations in moisture due to tidal activity, also contain actual acid sulphate soils (KMG, 2010). No significant enrichment of environmentally sensitive heavy metals occur within the soil units of the application area (KMG, 2010). Two small areas of native vegetation will be cleared within the shoreline and floodplain (KMG, 2010; GIS Database), however, this proposed clearing is not expected to create or exacerbate the incidence of naturally occurring acid sulphate soils within the application area.

Based on the above, the proposal may be at variance to this Principle.

Methodology KMG (2010)
GIS Database:

- Clearing Instruments
- Wyndham Townsite 20cm Orthomosaic - Landgate 2007

(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 located approximately 11 kilometres to the north-west of Parry Lagoons Nature Reserve and 15 kilometres west of Ord River Nature Reserve (GIS Database). The vegetation within the application area does not act as a buffer or ecological linkage to these conservation areas.

The application area is partly located within the Parry Floodplain which is listed in the "Directory of Important Wetlands of Australia" (GIS Database). The clearing proposal will involve the clearing of 0.27 hectares of native vegetation for a causeway within the Parry Floodplain (GIS Database; KMG, 2010). A further 2.96 hectares of native vegetation will be cleared immediately adjacent to a mudflat zone (comprising no native vegetation) of the Parry Floodplain for a stockpile area, workshop and water tank (GIS Database; KMG, 2010). This vegetation is likely to contribute to a buffer area to the Parry Floodplain. The remaining 1.08 hectares of native vegetation under application is not growing in association with the Parry Floodplain.

The Department of Environment and Conservation has reviewed the potential impact of the proposed clearing on the conservation values of the Parry Floodplain wetland and does not object to the proposed clearing (DEC, 2010). The Department of Water (2010) has also advised that they do not hold an objection to the proposed clearing.

The proposed clearing of 4.31 hectares of native vegetation is not likely to significantly impact on the conservation values of the Parry Floodplain.

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

Methodology

DEC (2010)
DoW (2010)
GIS Database
- ANCA, Wetlands
- 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 Supply Area (PDWSA) (GIS Database). The nearest PDWSA is Moochalabra Dam Catchment Area which is situated approximately 19 kilometres south of the application area (GIS Database). Given the distance separating the application area and Moochalabra Dam Catchment Area, the proposed clearing is unlikely to impact on the quality of groundwater in the PDWSA.

The application area is partly located within the Parry Floodplain wetland which comprises of permanent and seasonal rivers and streams, river flats and basins, seasonal freshwater lakes, swamps and ponds (GIS Database; Environment Australia, 2001). The remainder of the application area is located adjacent to the Parry Floodplain (GIS Database). There are no permanent watercourses within the application area, however, aerial imagery demonstrates there are two areas associated with floodplains and mudflats which are likely to become seasonally inundated from surface water runoff (GIS Database; DoW, 2010). These areas are also likely to become inundated during high tide events. Given the proximity of the application area to an estuarine environment, any surface water is likely to be considered saline to hyper-saline (Animal Plant Mineral, 2010). Any surface water is also likely to contain a high level of suspended sediment due to the clayey nature of the tidal clays and sedimentation from the surrounding catchment area.

KMG (2010) has advised that all upper-catchment surface water runoff will be prevented by entering the application area by a series of diversion drains that will capture and re-direct runoff into the natural floodplain. Direct rainfall and subsequent surface water runoff from the cleared areas will flow through sediment basins to minimise sedimentation from the site (KMG, 2010). These management strategies are likely to minimise erosion and sedimentation risk from the cleared areas.

The proposed clearing is not likely to adversely impact on the quality of water within or adjacent to the application area.

The Department of Water (DoW) (2010) advised that they do not hold an objection to the proposed clearing.

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

Methodology

Animal Plant Mineral (2010)
DoW (2010)
Environment Australia (2001)
KMG (2010)

GIS Database:
- ANCA, Wetlands
- Hydrography, linear
- Public Drinking Water Source Areas (PDWSAs)

(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 is located within the West Arm catchment area (GIS Database). The size of the proposed clearing (4.31 hectares) in relation to the size of the West Arm catchment area (30,065 hectares) is not likely to lead to an increase in flood height or duration (GIS Database).

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

Methodology

GIS Database:
- Hydrographic Catchments - Catchments

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

Comments

The clearing permit application was advertised on 23 August 2010 by the Department of Mines and Petroleum, inviting submissions from the public. No submissions were received during the public submissions period. One submission was received from Kimberley Land Council (KLC) on behalf of Balanggarra Native Title Claimants (Balanggarra) on 29 September 2010 objecting to the proposed clearing. The grounds for objection included the following:

1. Lack of detailed information: Balanggarra were concerned that there was a lack of detailed maps and biological information provided by the applicant in support of the application. DMP confirms that the applicant provided detailed maps of the application area, as well as conducted two Level 1 flora and vegetation surveys over the application area (wet and dry season). The survey reports were supplied to DMP during the assessment of the clearing application.
2. Environmental concern: Balanggarra were concerned that the applicant did not review the environmental values of the vegetation under application. As outlined under objection ground 1, two Level 1 flora and vegetation surveys were conducted over the application area. In addition, a desktop review of the environmental values was undertaken by DMP and environmental advice was obtained from the Department of Environment and Conservation and Department of Water, however, neither of these agencies objected to the proposed clearing. The proponent has also committed to developing a Construction and Operational Management Plan which will be reviewed by the DEC, prior to the commencement of clearing and construction of the barge facility (KMG, 2010).
3. Impact on native title rights: This objection ground has been addressed below.
4. Impact on aboriginal heritage: This objection ground has been addressed below.
5. Lack of consultation. Balanggarra were concerned that the applicant had not properly consulted them regarding the clearing proposal and that the 21 day submission period did not provide them with sufficient time to consider the effect of the clearing on native title rights and interests. DMP notes that the Miscellaneous Licences 80/59 and 80/59 were granted in accordance with the future act regime of the *Native Title Act 1993* (for further information see paragraph below). DMP confirms that a 21 day submission period is afforded to all interested parties upon receipt of a native vegetation clearing application.

There is one native title claim (WC00_006) over the area under application (GIS Database). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, 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*.

The buffer area of one known Aboriginal Site of Significance intercepts the southern portion of the application area (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Sites of Aboriginal 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.

It is noted that the proposed clearing may impact on a protected matter under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act). The proponent (KMG) referred the project to the (Federal) Department of the Environment, Water, Heritage and the Arts (DEWHA) for environmental impact assessment under the EPBC Act. DEWHA deemed on 15 June 2010 that the proposed action was not a controlled action (DEWHA, 2010). This means that the proposed action does not require further assessment and approval under the EPBC Act before it can proceed (DEWHA, 2010).

The application area was referred to the Environmental Protection Authority (EPA) by the proponent (KMG) on the 4 January 2010. The EPA set the level of assessment as 'Not Assessed - Managed under Part V of the *Environmental Protection Act 1986* (Clearing)'. There were no appeals of this decision (OAC, 2010).

Methodology DEWHA (2010)
KMG (2010)
OAC (2010)
GIS Database
- Native Title Determined
- Native Title Federal
- Native Title NNTT
- Sites of Aboriginal Significance DIA

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*, and the proposed clearing is at variance to Principle (f), may be at variance to Principle (g), is not likely to be at variance to Principles (a), (b), (c), (d), (h), (i) and (j) and is not at variance to Principle (e).

5. References

Animal Plant Mineral (2009). Kimberley Metals Group Pty Ltd Ridges Iron Ore Project: Barge Loading Facility Biological Assessment Survey, Prepared by Animal Plant Mineral, December 2009.

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DEC (2010). Advice for Clearing Permit Application CPS 3864/1. Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Mines and Petroleum (DMP), received 13 September 2010, Environmental Management Branch, Department of Environment and Conservation, Western Australia.

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.

DoW (2010). Advice for Clearing Permit Application CPS 3864/1. Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Mines and Petroleum (DMP), received 9 September 2010, Kimberley Region Branch, Department of Water, Western Australia.

Environment Australia (2001). A Directory of Important Wetlands in Australia, Third Edition. Environment Australia, Canberra.

Keighery, B.J. (1994). Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

KMG (2010). Application for a Clearing Permit, Purpose Permit for the Ridges Iron Ore Project Barge Loading Facility, Kimberley, Western Australia, July 2010.

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6. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government.
CALM	Department of Conservation and Land Management, Western Australia.
DAFWA	Department of Agriculture and Food, Western Australia.
DA	Department of Agriculture, Western Australia.
DEC	Department of Environment and Conservation
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DoE), 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, Western Australia.
DoIR	Department of Industry and Resources, Western Australia.
DOLA	Department of Land Administration, Western Australia.
DoW	Department of Water
EP Act	Environment Protection Act 1986, Western Australia.
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)

GIS	Geographical Information System.
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	Rights in Water and Irrigation Act 1914, Western Australia.
s.17	Section 17 of the Environment Protection Act 1986, Western Australia.
TECs	Threatened Ecological Communities.

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.