



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 5212/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: D K North

### 1.3. Property details

Property: Mining Lease 47/411  
Local Government Area: Shire of Roebourne  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
9.2		Mechanical Removal	Mineral Production

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 11 October 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
<p>Beard vegetation associations have been mapped for the whole of Western Australia. One Beard vegetation association has been mapped within the application area (GIS Database):</p> <p><b>157:</b> Hummock grasslands, grass steppe; hard spinifex <i>Triodia wiseana</i>.</p> <p>A flora and vegetation survey was undertaken over Mining Lease 47/411, which covers the application area, and several other nearby tenements by West Ecology in May 2011 (West Ecology, 2011). Four vegetation types were identified within the application area along with areas mapped as disturbed (West Ecology, 2011).</p> <p><b>Vegetation Type 0:</b> Disturbed area with no vegetation.</p> <p><b>Vegetation Type 1:</b> High open shrubland of <i>Acacia pyrifolia</i> var. <i>pyrifolia</i> over open hummock grassland on hills.</p> <p><b>Vegetation Type 2:</b> Open shrubland of <i>Acacia synchronicia</i> over open hummock grassland on plains.</p> <p><b>Vegetation Type 3:</b> Low open woodland of <i>Corymbia hamersleyana</i> over mosaic shrubland of <i>Acacia</i> species and hummock grassland on plains.</p> <p><b>Vegetation Type 4:</b> Scattered low trees of <i>Corymbia hamersleyana</i> and scattered tall shrubs of <i>Acacia tumida</i> var. <i>pilbarensis</i> in creeklines.</p>	<p>Donald Kimberley North has applied to clear up to 9.2 hectares of native vegetation within an application area of approximately 43 hectares for the purpose of gravel mining. The application area is located approximately 4 kilometres west of Wickham.</p> <p>Vegetation will be cleared using a front-end loader.</p>	<p>Pristine: No obvious signs of disturbance (Keighery, 1994);</p> <p>To:</p> <p>Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).</p>	<p>The vegetation condition was assessed by a botanist from West Ecology (2011). The vegetation condition was described using a scale based on Trudgen (1988) and has been converted to the corresponding condition from the Keighery (1994) scale.</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**

The application area occurs within the Chichester subregion of the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is characterised by plains supporting a shrub steppe of *Acacia inaequilatera* over *Triodia wiseana* hummock grasslands, while *Eucalyptus leucophloia* tree steppes occur on ranges (CALM, 2002).

The vegetation within the application area is broadly mapped as Beard vegetation association 157, which has approximately 99% of its pre-European extent remaining (Government of WA, 2011; GIS Database). A flora and vegetation survey of the application area was conducted by West Ecology in May 2011 (West Ecology, 2011). A total of 67 taxa from 21 families and 44 genera were recorded within the application area (West Ecology, 2011).

No Threatened Flora, Priority Flora or Threatened Ecological Communities have been identified within the application area (West Ecology, 2011; GIS Database). The application area is within the buffer of the Priority Ecological Community (PEC) 'Horseflat land system of the Roebourne Plains' (GIS Database). Current Department of Environment and Conservation mapping of the PEC has the closest mapped boundary located approximately 3.3 kilometres south-east of the application area and there are no known occurrences of the PEC mapped within the application area (West Ecology, 2011). Furthermore, the Horseflat land system does not occur over the application area (West Ecology, 2011; GIS Database). The PEC is unlikely to occur within the application area (West Ecology, 2011).

Two introduced flora species were recorded from the mining tenement containing the application area. These weed species were Buffel Grass (*Cenchrus ciliaris*) and Purslane (*Portulaca oleracea*) (West Ecology, 2011). 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.

A search of the Department of Environment and Conservation's NatureMap revealed records of 157 bird, 34 mammal, 99 reptile and five amphibian species within a 20 kilometre radius of the application area (DEC, 2012). This search radius reflects a wide variety of fauna habitat types, including the coastline, that are not represented within the application area. The vegetation types present within the application area are common in the local area (West Ecology, 2011; GIS Database) and it is likely that the fauna habitats present also occur elsewhere within the locality.

The application area is not likely to comprise a greater diversity than similar areas within the locality.

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

**Methodology**      CALM (2002)  
DEC (2012)  
Government of WA (2011)  
West Ecology (2011)  
GIS Database:  
- IBRA WA (Regions - Subregions)  
- Pre-European Vegetation  
- Rangeland Land System Mapping  
- Threatened and Priority Flora  
- 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 were undertaken within the application area. Three landforms were observed in the application area: hills, plains and creeklines as well as disturbed areas (West Ecology, 2011). The majority of the application area consisted of plains which surround the creekline (West Ecology, 2011). The landforms and their associated vegetation were also recorded outside of the application area and are typical of the Chichester subregion (CALM, 2002; West Ecology, 2011; GIS Database). Therefore, it is likely that the fauna habitats associated with these vegetation types are also common in the local area. Based on the vegetation survey and orthophotos of the application area, there are no significant habitat features such as caves, waterholes, permanent watercourses or coastal dunes (West Ecology, 2011; GIS Database).

The application area may provide habitat for a variety of fauna species but the fauna habitat types are likely to be represented outside the application area. No conservation significant fauna have previously been recorded within the application area (GIS Database) and while the application area may provide foraging habitat for some conservation significant species it is unlikely to provide core habitat for any species. These factors, combined with the small size of the application area, indicate that the application area is unlikely to provide significant habitat for fauna indigenous to Western Australia.

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

**Methodology** CALM (2002)  
West Ecology (2011)  
- Hydrography, Linear  
- Pre-European Vegetation  
- Roebourne 50 cm Orthomosaic - Landgate 2007  
- Threatened Fauna

**(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 known records of Threatened Flora within the application area (GIS Database). The nearest record of Threatened Flora is located approximately 205 kilometres south of the application area (GIS Database).  
  
No Threatened Flora were recorded within the application area during the flora and vegetation survey of Mining Lease 47/411 conducted by West Ecology in May 2011 (West Ecology, 2011).  
  
Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** West Ecology (2011)  
GIS Database:  
- Threatened and Priority Flora

**(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 available databases revealed there are no known Threatened Ecological Communities (TECs) within the application area (GIS Database). The nearest recorded TEC, Themeda grasslands on cracking clays, is located approximately 160 kilometres south of the application area (GIS Database).  
  
No TECs were identified during the flora and vegetation survey conducted over Mining Lease 47/411 by a West Ecology botanist and ecologist (West Ecology, 2011).  
  
Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** West Ecology (2011)  
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 clearing application area falls within the Pilbara Interim Biogeographic Regionalisation for Australia (IBRA) bioregion in which approximately 99.6% of the pre-European vegetation remains (see table) (Government of WA, 2011; GIS Database). This gives it a conservation status of 'Least Concern' according to the Bioregional Conservation Status of Ecological Vegetation Classes (Department of Natural Resources and Environment, 2002).  
  
The vegetation of the clearing application area has been broadly mapped as Beard vegetation association 157 'Hummock grasslands, grass steppe; hard spinifex *Triodia wiseana*' (Government of WA, 2011; GIS Database). According to Government of WA (2011), approximately 99% of this Beard vegetation association remains at the state level and 99.2% remains at a bioregional level. This vegetation association would be given a conservation status of 'Least Concern' at both a state and bioregional level (Department of Natural Resources and Environment, 2002).  
  
The vegetation under application is not a remnant of 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 – Pilbara	17,804,427	17,729,352	~99.6	Least Concern	6.3
Beard Veg Assoc. – State					
157	502,729	498,026	~99.0	Least Concern	17.9
Beard Veg Assoc. – Bioregion					
157	198,634	197,098	~99.2	Least Concern	5.7

\* Government of WA (2011)

\*\* 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)  
Government of WA (2011)  
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 at variance to this Principle**

A non-perennial creekline runs through the middle of the application area for its entire length (West Ecology, 2011; GIS Database). The creekline and its associated vegetation type, Vegetation Type 4, occupy approximately 15% of the application area with the vegetation generally in excellent condition (West Ecology, 2011).

Based on the above, the proposed clearing is at variance to this Principle. However, vegetation associated with minor non-perennial watercourses is common in the Pilbara bioregion and the local area (GIS Database) and the small area of proposed clearing is unlikely to have any significant impact on any watercourse or wetland.

**Methodology** West Ecology (2011)  
GIS Database:  
- Hydrography, Linear  
- Roebourne 50 cm 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 area intersects the Boolgeeda, Rocklea and Ruth Land Systems (GIS Database).

The Boolgeeda Land System is characterised by stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands and mulga shrublands (Van Vreeswyk et al., 2004). The vegetation is generally not prone to degradation and the system is not susceptible to erosion (Van Vreeswyk et al., 2004).

The Rocklea Land System is characterised by basalt hills, plateaux, lower slopes and minor stony plains supporting hard spinifex (and occasionally soft spinifex) grasslands (Van Vreeswyk et al., 2004). Van Vreeswyk et al. (2004) report that this system has a very low erosion risk.

The Ruth Land System is characterised by hills and ridges of volcanic and other rocks supporting hard spinifex (occasionally soft spinifex) grasslands (Van Vreeswyk et al., 2004). This land system is not susceptible to erosion (Van Vreeswyk et al., 2004).

Given the small size of the proposed activities and the low erosion risk of the land systems, the clearing 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** Van Vreeswyk et al. (2004)

GIS Database:  
- Rangeland Land System Mapping

**(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 proposed clearing is not located within a Department of Environment and Conservation (DEC) conservation reserve (GIS Database). The nearest known DEC conservation areas are on islands off the Western Australian coast (GIS Database) and the application area is unlikely to provide any ecological linkage to these. The nearest mainland DEC conservation area is Millstream Chichester National Park, located approximately 50 kilometres south of the application area (GIS Database). At this distance the proposed clearing is unlikely to impact on the environmental values of the National Park.

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**

There are no permanent wetlands or watercourses within the application area, however, a non-perennial creekline runs through the middle of the application area for its entire length (West Ecology, 2011; GIS Database). The creekline and its associated vegetation type, Vegetation Type 4, occupy approximately 15% of the application area (West Ecology, 2011).

According to available databases the application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database). The nearest PDWSA is Roebourne Water Reserve, which is approximately 9 kilometres south-east of the application area (GIS Database).

The small area of the proposed clearing is unlikely to cause deterioration in the quality of underground water.

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

**Methodology** West Ecology (2011)  
GIS Database:  
- 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 Coastal catchment area of the Port Hedland Coast basin (GIS Database). Given the size of the area to be cleared (9.2 hectares) in relation to the size of the catchment area (744,301 hectares) (GIS Database), the proposed clearing is not likely to increase the potential of flooding on a catchment scale.

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**

There is one Native Title Claim (WC99/14) over the area under application (GIS Database). This claim has been determined by the Federal Court. 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*.

There is one registered Aboriginal Site of Significance in close proximity to 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 10 September 2012 by the Department of Mines and Petroleum inviting submissions from the public. One submission was received regarding Aboriginal heritage issues and a response was sent.

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

#### 4. References

- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management, Western Australia.
- DEC (2012) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. <http://naturemap.dec.wa.gov.au>. Accessed 7 September 2012.
- 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.
- Government of WA (2011) 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). 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.
- Trudgen, M.E. (1988) A Report on the Flora and Vegetation of the Port Kennedy Area. Unpublished Report Prepared for Bowman Bishaw and Associates, West Perth.
- Van Vreeswyk A.M.E., Payne A.L., Leighton K.A. and Hennig P. (2004) Technical Bulletin - An Inventory and Condition Survey of the Pilbara Region, Western Australia, No. 92. Department of Agriculture, Perth, Western Australia.
- West Ecology (2011) Flora and Vegetation Survey of Welcome Exploration Tenements M47/411, M47/524, M47/556, M47/442 and M45/1195. Report Prepared by West Ecology for Welcome Exploration Pty Ltd, September 2011.

#### 5. Glossary

##### Acronyms:

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