



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 6126/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: **Process Minerals International Pty Ltd**

### 1.3. Property details

Property: Miscellaneous Licence 45/219  
Miscellaneous Licence 45/247  
Miscellaneous Licence 45/356  
Miscellaneous Licence 45/357

Local Government Area: Town of Port Hedland

Colloquial name: Poondano Village

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
15		Mechanical Removal	Accommodation, Access Tracks and Water Pipeline

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 10 July 2014

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

**Vegetation Description** Beard vegetation associations have been mapped for the whole of Western Australia and are useful to look at vegetation in a regional context. Three vegetation associations have been mapped within the application area (GIS Database):

93: Hummock grasslands, shrub steppe; kanji over soft spinifex;

589: Mosaic: Short bunch grassland – savannah / grass plain (Pilbara) / Hummock grasslands, grass steppe; soft spinifex; and

647: Hummock grasslands, dwarf-shrub steppe; *Acacia translucens* over soft spinifex.

A flora survey was conducted over the application area by Astron Environmental Services (Astron) on 31 January 2013. The following vegetation associations were recorded within the application area (Astron, 2013a):

**AsTsTe:** *Acacia stellaticeps* low shrubland to low open heath over *Triodia schinzii*, *T. epactia* hummock grassland with *Aristida ?sygrometrica* (sterile). Scattered shrubs of *Acacia tumida*, *A. inaequilatera*;

**AcAsTs:** *Acacia tumida* shrubland over *Acacia stellaticeps* low shrubland to low open heath over *Triodia schinzii*, *T. epactia* hummock grassland; and

**ChAcTe:** *Corymbia hamersleyana* scattered to low open woodland over *Acacia tumida* shrubland with *A. inaequilatera* over *Triodia epactia* hummock grassland. Scattered *Corymbia flavescens*. There are pockets of *Melaleuca lasiandra* low trees.

**Clearing Description** Poondano Village Project.  
Process Minerals International Pty Ltd (PMI) proposes to clear up to 15 hectares within a boundary of 128.1 hectares for the purposes of accommodation, access tracks and a water pipeline. The project is located approximately 17 kilometres south-east of Port Hedland.

**Vegetation Condition** Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).

**Comment** The vegetation condition was derived from a report by Astron (2013a). 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.

Vegetation associations AsTsTe and AcAsTs occurred as a mosaic.

The application area had been severely burnt within the previous 12 to 18 months (Astron, 2013a).

There were 139.4 millimetres of rain received a week prior to the survey however, this was too recent for most annuals and ephemerals to have developed sufficiently for identification (Astron, 2013a).

### 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**

Three vegetation associations were identified within the application area (Astron, 2013a). Despite being burnt within the past 12-18 months the vegetation was in 'excellent' condition (Astron, 2013a). None of the vegetation associations recorded were identified as a Threatened or Priority Ecological Community (Astron, 2013a). The vegetation within the application area is common and widespread within the local and broader region (Astron, 2013a).

The flora survey of the application area recorded a total of 52 taxa from 34 genera and 21 families (Astron, 2013a). Two individuals of the Priority 1 flora species *Heliotropium muticum* were recorded from one location within the application area (Astron, 2013a). This species is known from 12 records from around the general Port Hedland area (Western Australian Herbarium, 2014). Recent records of this species suggest that the species may be more common than current records suggest (Astron, 2013a). Impacts to this species may be minimised by a flora management condition.

The landforms present are common in the local area and do not contain significant fauna habitats such as caves, gorges and watercourses (Astron, 2013a). Given this and that the vegetation within the application is common in the local area, the application area is not expected to support a high level of faunal diversity.

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

**Methodology**      Astron (2013a)  
Western Australian Herbarium (2014)

#### (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 may be at variance to this Principle**

No fauna surveys have been conducted over the application area. Based on the habitat present a targeted Mulgara (*Dasyurus blythi* - Priority 4) search was conducted between 3 and 5 May 2013. The search identified three records of possible Mulgara evidence (Astron, 2013b). Of these, two of the records (a burrow and diggings) were considered old and no longer being utilised (Astron, 2013b). The other record was a potentially active burrow, although the entrance did not appear to have any fresh tracks (Astron, 2013b). Motion detection cameras were deployed outside of this burrow and also the old burrow. No species of mammal were recorded on the cameras (Astron, 2013b). Based on these results it would suggest that Mulgara are not currently active within the application area. This may be due to the recent fire or disturbance from the adjacent sand mine (Astron, 2013b).

The vegetation association ChAcTe in the south-east of Miscellaneous Licence 45/219 can be important fauna habitat in area devoid of large, hollow forming trees (Astron, 2013a). The potential Mulgara burrow was recorded from within this habitat. Impacts on Mulgara may be minimised by restricting clearing within vegetation association ChAcTe.

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

**Methodology**      Astron (2013a)  
Astron (2013b)

#### (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). The flora survey did not record any Threatened Flora species within the application area (Astron, 2013a). Habitat in the application area is unlikely to support known Threatened Flora species in the Pilbara.

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

**Methodology**      Astron (2013a)  
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**

According to available databases, there are no Threatened Ecological Communities (TECs) within the application area (GIS Database). The flora survey did not identify any vegetation communities considered to be a TEC within the application area (Astron, 2013a).

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

**Methodology Astron (2013a)**

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 lies within the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregion in which approximately 99.6% of the pre-European vegetation remains (see table) (Government of Western Australia, 2013; GIS Database).

The vegetation of the application area has been broadly mapped as Beard vegetation associations 93, 589 and 647. These vegetation associations have not been extensively cleared as over 97% remains at both a State and bioregional level for all vegetation associations (see table) (Government of Western Australia, 2013). There has not been extensive clearing in the local region and the vegetation within the application area is not a remnant nor does it form part of any remnants within the local area (GIS Database).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DPaW Managed Land
IBRA Bioregion – Pilbara	17,808,657	17,733,583	~99.6	Least Concern	8.37
Beard veg assoc. – State					
93	3,044,309	3,040,641	~99.9	Least Concern	1.96
589	807,698	802,713	~99.4	Least Concern	1.59
647	195,860	191,711	~97.9	Least Concern	0.00
Beard veg assoc. – Bioregion					
93	3,042,114	3,038,471	~99.9	Least Concern	1.96
589	728,768	724,695	~99.4	Least Concern	1.77
647	195,859	191,710	~97.9	Least Concern	0.00

\* Government of Western Australia (2013)

\*\* 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 Western Australia (2013)  
GIS Database:  
- IBRA WA (Regions - Sub Regions)  
- Port Hedland 50cm Orthomosaic  
- 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**

There are no watercourses present within the application area (GIS Database). None of the vegetation associations within the application area are associated with a watercourse or wetland (Astron, 2013a).

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

**Methodology** Astron (2013a)  
GIS Database:  
- 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**  
The application area is mapped as occurring on the Uaroo land system (GIS Database). This land system is generally not susceptible to erosion or significant vegetation degradation, however, some erosion is evident on drainage tracts (Van Vreeswyk et al., 2004). There are no drainage tracts within the application area (GIS Database).

The application area is relatively flat so the proposed clearing is not expected to cause an increase in the amount of water erosion in the area (GIS Database). The proposed clearing of 15 hectares is not likely to cause groundwater levels to rise leading to an increase in soil salinity.

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:  
- Hydrography, linear  
- Rangeland Land System Mapping  
- Topographic Contours, Statewide

**(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 does not lie within any conservation areas or Department of Parks and Wildlife managed lands (GIS Database). The nearest onshore conservation area is the Mungaroona Range Nature Reserve which is located approximately 115 kilometres south-west of the application area (GIS Database). At this distance the proposed clearing will not impact on the environmental values of the Nature Reserve.

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 watercourses within the application area (GIS Database). Surface water within the application area is likely to occur as sheet flow following heavy rains. The proposed clearing is unlikely to impact the quality of surface water in the local area.

The application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database). The groundwater within the application area is between 1,000 – 3,000 milligrams per litre of Total Dissolved Solids (TDS) (GIS Database). This is considered to be brackish. It would not be expected that the proposed clearing would cause salinity levels within the application or surrounding area to alter.

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

**Methodology** GIS Database:  
- Groundwater Salinity, Statewide  
- 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**  
With an average annual rainfall of 319.8 millimetres and an average annual evaporation rate of 3,400 millimetres there is likely to be little surface flow during normal seasonal rains (BoM, 2014; GIS Database). Whilst large rainfall events may result in the flooding of the area, the proposed clearing is not likely to lead to an increase in incidence or intensity of flooding.

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

**Methodology** BoM (2014)

GIS Database:  
- Evaporation Isoleths

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

### Comments

There is one Native Title Claim (WC2009/003) over the area under application. 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*.

There are no registered Aboriginal sites 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 Regulation, Department of Parks and Wildlife 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 amendment was advertised on 9 June 2014 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the application.

### Methodology

GIS Database:  
- Aboriginal Sites of Significance  
- Native Title Claims – Registered with the NNTT

## 4. References

- Astron (2013a) Poondano NVCP Surveys - Camp Area, January 2013. Unpublished report prepared for Polaris Metals Pty Ltd, dated 27 May 2013.
- Astron (2013b) Poondano Proposed Camp - Targeted Mulgara Survey, May 2013. Unpublished report prepared for Polaris Metals Pty Ltd, dated 17 May 2013.
- BoM (2014) Bureau of Meteorology Website - Climate statistics for Australian locations, Port Hedland Airport. Available online at: [http://www.bom.gov.au/climate/averages/tables/cw\\_004032.shtml](http://www.bom.gov.au/climate/averages/tables/cw_004032.shtml) Accessed on 3 July 2014.
- 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 Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- 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 & Hennig, P. (2004) An Inventory and Condition Survey of the Pilbara Region, Western Australia, Department of Agriculture, Western Australia.
- Western Australian Herbarium (2014) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. <<http://florabase.dpaw.wa.gov.au/>> Accessed 4 July 2014.

## 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.