



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 6216/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Wonmunna Iron Ore Pty Ltd

### 1.3. Property details

Property: Mining Lease 47/1423  
Mining Lease 47/1424  
Mining Lease 47/1425  
Local Government Area: Shire of East Pilbara  
Colloquial name: Wonmunna Iron Ore Project

### 1.4. Application

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

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 25 September 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. One Beard vegetation association has been mapped within the application area:

- 18: Low woodland; mulga (*Acacia aneura*) and
- 29: Sparse low woodland; mulga, discontinuous in scattered groups
- 82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*

A Level 2 flora and vegetation assessment was conducted over the application area in 2011 by G&G Environmental Pty Ltd (G&G, 2014). A total of 15 vegetation associations were recorded within the application area, including:

**C1** - Isolated mid *Eucalyptus camaldulensis* trees to mid *E. camaldulensis* woodland over isolated low trees to low *Acacia citrinoviridis* and *Eucalyptus xerothermica* woodland over isolated mixed tall shrubs to tall shrubland frequently with *Gossypium sturtianum* and *Petalostylis labicheoides* shrubs over a mixed low to mid grassland of *Eulalia aurea*, *Themeda triandra* and *Triodia* spp.

**C3** - A low *Eucalyptus xerothermica* and *E. socialis* woodland, occasionally with *E. repullulans* mallee over a mid to tall *Gossypium sturtianum*, *Petalostylis labicheoides* and *Acacia* spp. shrubland over a low to mid mixed grassland of *Themeda triandra* and *Triodia* spp.

**C4** - A low *Eucalyptus socialis* and *E. gamophylla* mallee woodland over *Acacia maitlandii* and *Petalostylis labicheoides* mid to tall shrubland over a *Triodia longiceps* and *T. brizoides* low to mid hummock grassland.

**C5** - Isolated low *Acacia aptaneura* and *A. pruinocarpa* trees over a low *Eucalyptus repullulans* and *E. leucophloia* woodland over isolated mixed low to mid *Acacia* spp. shrubs over isolated clumps of *Triodia brizoides* and *Themeda triandra* grassland.

**C6** - Isolated low *Acacia distans*, *A. pruinocarpa* and *Corymbia hamersleyana* trees in a low open *Eucalyptus gamophylla* and *E. repullulans* mallee woodland over a tall *Petalostylis labicheoides* scrubland over isolated low mixed shrubs with *Gompholobium polyzygum* and *Keraudrenia nephrosperma* prominent over isolated clumps of low *Triodia pungens* hummocks.

**M1** - Isolated clumps of *Eucalyptus repullulans* mallee to low mallee woodland over isolated low to mid *Acacia bivenosa*, *A. synchronicia* and *Melaleuca eleuterostachya* shrubs in a *Triodia brizoides* low hummock grassland with a low *Eucalyptus repullulans* low mallee woodland over a mid *Acacia bivenosa* shrubland over a *Triodia brizoides*, *T. longiceps* and *Themeda triandra* low to mid grassland in drainage foci.

**M2** - Isolated low *Acacia* spp., *Corymbia hamersleyana* and *Eucalyptus leucophloia* trees over isolated low *E. repullulans* mallee to low mallee woodland over isolated mixed low shrubs to low open shrubland with *Corchorus lasiocarpus* subsp. *lasiocarpus*, *Indigofera monophylla*, *Ptilotus* spp. and *Goodenia* spp. prominent in a low open

*Triodia brizoides* hummock grassland with a low *Eucalyptus repullulans* woodland over a mid open *Acacia bivenosa* shrubland over a *Triodia longiceps* and *T. pungens* hummock grassland in drainage lines. Vegetation recovering from fire.

**M3** - Isolated low *Acacia aptaneura*, *A. pruinocarpa* and *A. synchronicia* trees or tall shrubs over isolated low mixed *Eucalyptus gamophylla*, *E. repullulans* and *E. socialis* mallee to low open mallee woodland over a low to mid *Triodia brizoides* and *T. wiseana* hummock grassland.

**M4** - Isolated low *Eucalyptus leucophloia* trees and *E. gamophylla* mallee to low open woodland over isolated tall mixed *Acacia* spp. and *Petalostylis labicheoides* shrubs to open shrubland over isolated low mixed shrubs to low open shrubland with *Gompholobium polyzygum*, *Dampiera candidans* and *Goodenia scaevolina* common over a *Triodia pungens* and *T. wiseana* hummock grassland with pockets of a low *Acacia distans* and *Eucalyptus leucophloia* woodland over isolated tall mixed shrubs and isolated clumps of *Triodia pungens* hummocks on steep rocky slopes near the crest of plateaus and isolated mid *Eucalyptus leucophloia* trees over a low *E. repullulans* mallee and tall *Petalostylis labicheoides* shrubland over *Triodia longiceps* and *T. pungens* mid hummock grassland in drainage lines.

**AW1** - A low to mid *Acacia aptaneura*, *A. distans* and *A. pruinocarpa* woodland over isolated mid to tall *Eremophila forrestii* subsp. *forrestii*, *E. fraseri* and *Anthobolus leptomerioides* shrubs to open shrubland over a low mixed *Triodia melvillei*, *T. pungens* and *T. wiseana* open grassland to grassland with *T. melvillei* frequently dominant.

**AW2** - A low *Acacia rhodophloia* and *A. distans* woodland with isolated *Grevillea berryana* trees over mid to tall isolated *Anthobolus leptomerioides*, *Sarcostemma viminale* and *Eremophila latrobei* subsp. *latrobei* shrubs over an open *Triodia pungens* and *T. wiseana* hummock grassland.

**EW1** - Isolated low to mid *Eucalyptus leucophloia* and *Acacia aptaneura* trees to low open woodland over isolated low *Eucalyptus repullulans* mallee to open mallee woodland frequently with *E. socialis* low mallee woodland in drainage foci over a variable low to mid shrub layer with *Acacia* spp. and *Melaleuca eleuterostachya* common over a low to mid *Triodia brizoides* grassland often with patches of *T. angusta* and *T. pungens*.

**S1** - Isolated low *Acacia aptaneura* trees over isolated mid to tall *Acacia tetragonophylla* shrubs to open shrubland over isolated low to mid *Eremophila lachnocalyx* shrubs to mid shrubland over a low to mid mixed tussock grassland, frequently with *Aristida latifolia*, *Eragrostis xerophila* and *Astrebla pectinata*.

**SS1** - Isolated low trees, frequently *Corymbia hamersleyana* and *Acacia inaequilatera* over isolated low to tall mixed shrubs with *Acacia* spp., *Grevillea wickhamii* and *Hakea chordophylla* common over isolated low *Indigofera rugosa* shrubs in a low *Triodia brizoides* hummock grassland with isolated clumps of *Themeda triandra* in drainage foci.

**SS2** - Isolated low *Eucalyptus leucophloia* trees over isolated mid *Senna artemisioides* subsp. *oligophylla*, *S. glutinosa* and *S. glutinosa* subsp. *pruinosa* shrubs over isolated low *Hibiscus haynaldii*, *Sida cardiophylla* and *S. fibulifera* shrubs in a low open *Triodia brizoides* and *Triodia pungens* hummock grassland.

<b>Clearing Description</b>	Wonmunna Iron Ore Project. Wonmunna Iron Ore Pty Ltd proposes to clear up to 555 hectares within a total boundary of 2,462.9 hectares for the purpose of mineral production. The project is located approximately 69 kilometres north, north-west of Newman, in the Shire of East Pilbara.
<b>Vegetation Condition</b>	Pristine: No obvious signs of disturbance (Keighery, 1994);  To:  Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).
<b>Comment</b>	The current application is for the construction of infrastructure for the Wonmunna Iron Ore mine including pits, roads, waste dumps, accommodation, laydown areas, a crusher pad, workshops and abandonment bunds.  In some areas, vegetation was downgraded from Pristine to Excellent due to the presence of weed species, grazing pressure from cattle and vegetation previously cleared for exploration activities.

### 3. Assessment of application against clearing principles

#### (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

<b>Comments</b>	<b>Proposal is not likely to be at variance to this Principle</b> The application is located within the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) region and the Hamersley subregion (GIS Database). The Pilbara region represents a transitional zone between semi-arid and tropical climates (Kendrick, 2001). The Hamersley IBRA subregion comprises Proterozoic ranges, plateaus, and gorges of basalt, shale and dolerite (Kendrick, 2001).  The vegetation within the application area is mapped as belonging to Beard associations 18, 29 and 82 (GIS Database). A Level 2 flora and vegetation assessment of the Wonmunna project area was conducted in 2011 and 2014 by G&G Environmental Pty Ltd (G&G, 2014). A total of 16 vegetation associations were recorded within the application area, which ranged from Excellent to Pristine condition (Keighery, 1994; G&G, 2014).
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None of the vegetation communities represented a Threatened Ecological Community (TEC) or Priority

Ecological Community (PEC), which is consistent with available databases (GIS Database). Almost one third of the taxa recorded within vegetation community S1 and approximately 40.6% of taxa recorded in vegetation community C1 were not recorded elsewhere. As a result, both vegetation communities are considered to be potentially significant on a local scale (Ascot Resources, 2014a; G&G, 2014). However, approximately 31% of the mapped area of vegetation community S1 occurs outside the application boundary (G&G, 2014), and given its naturally patchy distribution it is unlikely to be susceptible to the impacts of fragmentation which may occur following the proposed clearing. A total of 71.5% of vegetation community C1 occurs outside the application boundary (G&G, 2014), and it is unlikely to be significantly impacted by the proposed clearing.

A total of 270 flora taxa comprising 42 families and 124 genera were recorded by G&G (2014). Floristic diversity within the Wonmunna area is not considered to be unusually high, and is within the range of floristic diversity recorded by other surveys conducted in the surrounding region (G&G, 2014). Using the Naturemap database (DPaW, 2014), a total of one rare and 25 priority flora species are known to occur within 20 kilometres of the application area. While suitable habitat for Declared Rare Flora (DRF) species *Lepidium catapycnon* and several priority flora exists within the application area, no DRF or priority flora were recorded during the flora and vegetation assessment (G&G, 2014).

A total of eight introduced flora species were recorded within the application area, however none of these are a Declared Weed (G&G, 2014). All weed species were recorded in riparian habitat. Buffel Grass (*Cenchrus ciliaris*) was the most abundant weed recorded, and dominated the grass layer at one location (G&G, 2014). Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area (DEC, 2011). Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

A Level 2 Fauna assessment was conducted over the Wonmunna area in 2011 and 2012 by Phoenix Environmental sciences Pty Ltd, and updated in 2014 (Phoenix, 2014). Of the 275 vertebrate fauna species identified to potentially occur within the application area following a desktop assessment, a total of 169 fauna species were recorded during a field survey (Phoenix, 2014). Of the 23 conservation significant fauna species advised to potentially occur within the project area, a total of five were recorded, including the Western Pebble-mound Mouse (*Pseudomys chapmani*; Priority 4), Australian Bustard (*Ardeotis australis*; Priority 4), Bush Stone-curlew (*Burhinus grallarius*; Priority 4), Star Finch (*Neochimia ruficauda subclarescens*; Priority 4), and Rainbow Bee-eater (*Merops ornatus*; Migratory) (Phoenix, 2014).

Targeted searches were carried out for the Northern Quoll (*Dasyurus hallucatus*; Schedule 1), however none were recorded (Ascot Resources, 2014a; Phoenix, 2014). Suitable habitat for this species exists within an exclusion boundary placed around Weeli Wolli creek by the proponent (Ascot Resources, 2014a). Similarly, habitat within the exclusion zone provides suitable habitat for the Pilbara Leaf-nosed Bat (*Rhinonictis aurantia*; Schedule 1), Ghost Bat (*Macroderma gigas*; Priority 4), and Pilbara Olive Python (*Liasis olivaceous barroni*; Schedule 1). Limited suitable habitat for these species exists within the application boundary, however they may use the application area for foraging and dispersal activities.

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

**Methodology** Ascot Resources (2014a)  
DPaW (2014)  
DEC (2011)  
G&G (2014)  
Keighery (1994)  
Kendrick (2001)  
Phoenix (2014)  
GIS Database:  
- IBRA WA (Regions - Sub Regions)  
- Pre-European Vegetation  
- Threatened Ecological Sites Buffered

**(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.**

**Comments** **Proposal is not likely to be at variance to this Principle**  
The Level 2 Fauna assessment was conducted over the Wonmunna area in 2011 and 2012 by Phoenix (2014) recorded seven habitat types within the application area, including:  
  
Mallee woodland (36.5% of the project area);  
Spinifex steppe (34.5%);  
Eucalypt woodland (12.3%);  
Acacia woodland (12.1%);  
Major drainage line (2.2%);  
Minor drainage line (2.2%); and  
Shrubland in brown clay (0.2%).

All habitat types, with the exception of shrubland on brown clay, are well represented outside the application area (Ascot Resources, 2014a). Shrubland in brown clay was not advised to represent important habitat for

fauna (Ascot Resources, 2014a; Phoenix, 2014). The proponent has placed an exclusion boundary of approximately 1 kilometre x 2.2 kilometres over Weeli Wolli Creek, which occurs within the north-west region of the application area (Ascot Resources, 2014a). Weeli Wolli Creek is the most important habitat type within the Wonmunna project area (Phoenix, 2014), and the exclusion boundary greatly reduces the potential impact to habitat-specific fauna such as the Northern Quoll, Pilbara Leaf-nosed Bat, Pilbara Olive Python, and Ghost Bat. While these species may occur within the application area, it will most likely be during nocturnal foraging which is unlikely to coincide with clearing activity.

In general, the number of recorded bird species was highest within drainage line habitat (Phoenix, 2014). Four hectares of major drainage line habitat occurs within the application area, and provides habitat for the Star Finch and Rainbow Bee-eater (Phoenix, 2014). Both the Rainbow Bee-eater and Star Finch were recorded within the major drainage line connected to Weeli Wolli Creek (Phoenix, 2014), in an area that provides suitable nesting habitat for the Rainbow Bee-eater. However, disturbance within this area is restricted to one access road crossing, and further suitable habitat occurs outside the application area and within the Weeli Wolli exclusion boundary (Ascot Resources, 2014a; Phoenix, 2014).

Mallee woodland and spinifex steppe is inhabited by the Western Pebble-mound Mouse (Phoenix, 2014). A total of 37 pebble mounds were recorded during the fauna survey, 17 of which were currently active, suggesting a moderate abundance of this species (Phoenix, 2014). The proposed clearing will remove areas of Pebble-mound Mouse habitat, which may impact species abundance on a local scale. However, this species has a wide distribution across the Pilbara region (Phoenix, 2014), and the proposed clearing is not likely to impact the conservation of this species on a local or regional scale. The proponent has advised that liaison with DPaW will occur to minimise impacts to the Pebble-mound Mouse on site.

The Australian Bustard and Bush Stone-curlew were recorded within spinifex steppe and Acacia woodland, but are unlikely to be significantly dependent on habitat within the application area based on the widespread distribution of these habitat types outside the application boundary.

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

**Methodology** Ascot Resources (2014a)  
Phoenix (2014)

**(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**

One Threatened flora (*Lepidium catapycnon*) has the potential to occur within the application area, with the nearest record for this species occurring 6 kilometres from the project (DPaW, 2014). However, no Threatened flora species were recorded within the application area during the Level 2 flora and vegetation assessment conducted by G&G (2014).

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

**Methodology** DPaW (2014)  
G&G (2014)

**(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 known Threatened Ecological Communities (TECs) within the application area (GIS Database). Similarly, the vegetation survey conducted by G&G (2014) did not identify any of the vegetation recorded as being a TEC.

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

**Methodology** G&G (2014)  
GIS Database:  
- Threatened Ecological Sites Buffered

**(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.**

**Comments Proposal is not at variance to this Principle**

The application area falls within the 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 within the application area has been mapped as Beard vegetation associations 18, 29 and 82 (GIS Database). Over 90% of these Beard vegetation associations remain at both a state and bioregional level (Government of Western Australia, 2013). Based on aerial imagery, the vegetation within the application area

is neither a remnant itself 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 Lands
IBRA Bioregion – Pilbara	17,808,657	17,733,584	~99.6	Least Concern	8.4
Beard veg assoc. – State					
18	19,892,305	19,843,727	~99.8	Least Concern	6.3
29	7,903,991	7,900,200	~99.9	Least Concern	5.2
82	2,565,901	2,553,217	~99.5	Least Concern	10.5
Beard veg assoc. – Bioregion					
18	676,557	672,424	~99.4	Least Concern	17.2
29	1,133,220	1,132,939	~99.9	Least Concern	2.0
82	2,563,583	2,550,899	~99.5	Least Concern	10.5

\* 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:  
- Governor 50cm Orthomosaic - Landgate 2004  
- IBRA WA (Regions - Sub Regions)  
- Ophthalmia 50cm Orthomosaic - Landgate 2004  
- 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 total of five vegetation communities within the application area were recorded in association with drainage lines and are considered to be riparian in nature, including C1, C3, C4, C5 and C6. Vegetation community C1 had the highest level of species diversity with 101 taxa recorded (G&G, 2014). However, the proposed clearing is not likely to impact the conservation of this vegetation community, as a majority of the mapped area occurs outside the application boundary (G&G, 2014). The proponent has advised that the disturbance of riparian vegetation will be avoided wherever possible and that the flow of surface water across the project will be maintained to minimise impacts to riparian vegetation (Ascot Resources, 2014b).

The application area occurs upstream of Weeli Wolli Creek. To minimise impacts to the Weeli Wolli Creek system and associated vegetation and reflect the commitments made by the proponent, a watercourse management condition is recommended.

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

**Methodology** Ascot Resources (2014b)  
G&G (2014)

**(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 lies over three land systems, including the Egerton land system, Newman land system and Rocklea land system (GIS Database).

A majority of the application area (1250.54 hectares) occurs within the Rocklea land system (Ascot Resources, 2014a). The Rocklea land system contains basalt hills, lower slopes and stony plains supporting spinifex grasslands (Van Vreeswyk et al., 2004). This land system has a typically hard, stony land cover which presents a low risk of erosion (Van Vreeswyk et al., 2004).

A total of 874.9 hectares of the application area occurs within the Newman land system (Ascot Resources,

2014a), which consists of mountains, ridges and plateaus (Van Vreeswyk et al., 2004). This land system is the second largest within the Pilbara, and is especially common within the Hamersley Range (Van Vreeswyk et al., 2004). A small proportion of this land system has been affected by erosion.

The remainder of the application area (338.16 hectares) lies within the Egerton land system (Ascot Resources, 2014a). The Egerton land system consists of hardpan plains supporting mulga shrublands and spinifex hummock grasslands, and is dissected by drainage systems (Van Vreeswyk et al., 2004). This land system is not considered to be susceptible to erosion (Van Vreeswyk et al., 2004).

Although the land systems that occur within the application area are not naturally susceptible to erosion, the removal of vegetation on a large scale leads to an increased potential for topsoil erosion and water erosion following heavy rainfall. Land degradation as a result of wind or water erosion may be minimised by the implementation of a staged clearing condition.

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

**Methodology** Ascot Resources (2014a)  
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 application area does not lie within any conservation areas managed by the Department of Parks and Wildlife (GIS Database). The nearest conservation area is the Karijini National Park, which is an A Class Nature Reserve (GIS Database). It is located approximately 39 kilometres west of the application area (GIS Database). From this distance, the proposed clearing is not likely to impact the environmental values of the Karijini 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**

The application area does not occur within a Public Drinking Water Source Area (PDWSA), however it is located within the proclaimed Pilbara groundwater area under the *Rights in Water and Irrigation Act 1914* (GIS Database). Any groundwater extraction and/or taking or diversion of surface water for the purposes other than domestic and/or stock watering is subject to licence by the Department of Water. The application area covers numerous minor, non-perennial watercourses, which are associated with Weeli Wolli Creek (GIS Database).

The clearing of native vegetation has the potential to destabilise soils and cause temporary sedimentation to watercourses. However, the proponent has advised that clearing within drainage channels will occur only during the dry season, and that bed and bank disturbance will be minimised to decrease the risk of water erosion and sedimentation within drainage lines (Ascot Resources, 2014a; Ascot Resources, 2014b). Surface water flow within drainage lines will be maintained by use of culverts, and any runoff from cleared areas with high levels of sedimentation will be directed through sedimentation basins before being discharged into the environment (Ascot Resources, 2014a). One permanent rock pool occurs outside the application boundary, within Weeli Wolli creek (Ascot Resources, 2014a). To minimise impacts to the Weeli Wolli creek system, an exclusion boundary 1 kilometre wide and 2.2 kilometres long has been placed over this area (Ascot Resources, 2014a). The surface water management measures proposed within the application area are considered adequate to minimise impacts to surface water within and adjacent to the application area. A watercourse management condition is recommended to reflect these commitments.

Groundwater salinity in the local area is slightly alkaline, reaching a maximum 600 milligrams/Litre Total Dissolved Solids (TDS) towards Weeli Wolli Springs (Ascot Resources, 2014a), which is considered marginal (GIS Database). On average, groundwater levels are 32 metres below surface water (Ascot Resources, 2014a). The proposed clearing activity is not likely to cause deterioration of groundwater within the project area.

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

**Methodology** Ascot Resources (2014a)  
Ascot Resources (2014b)  
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**

Mean annual rainfall in Newman is approximately 318 millimetres (BoM, 2014). The Pilbara region represents a transitional zone between semi-arid and tropical climates, and receives a majority of its rainfall during the summer months (Kendrick, 2001; CALM, 2002). It is likely that during times of intense rainfall there may be some localised flooding. The proposed clearing is unlikely to significantly alter the intensity of flooding within the application area or surrounding areas.

The application area is located within the Fortescue River Upper catchment area (GIS Database). However, given the size of the area to be cleared (555 hectares) in relation to the size of the catchment area (2,975,192 hectares), the proposed clearing is not likely to increase the potential for flooding in this region (GIS Database).

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

**Methodology** BoM (2014)  
CALM (2002)  
Kendrick (2001)  
GIS Database:  
- Hydrographic Catchments - Catchments

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

**Comments**

There are two native title claims over the application area (GIS Database). These claims (WC2005/003 and WC2013/003) have been registered with the Native Title Tribunal on behalf of the claimant group (GIS Database). 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 Sites of Aboriginal Significance located in the area applied to clear (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 Regulation, the 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 clearing permit application was advertised on 18 August 2014 by the Department of Mines and Petroleum inviting submissions from the public. There were no submissions received.

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

**4. References**

- Ascot Resources (2014a) Supporting Information for the Native Vegetation Clearing Permit Application - Purpose Permit: Wonmunna Iron Ore Project, Ascot Resources Limited.
- Ascot Resources (2014b) Further information provided to the assessing officer on 17 September, 2014.
- BoM (2014) Climate Statistics for Australian Locations. Climate Statistics for Australian Locations. A Search for Climate Statistics for Newman, Australian Government Bureau of Meteorology, [http://www.bom.gov.au/climate/averages/tables/cw\\_007176.shtml](http://www.bom.gov.au/climate/averages/tables/cw_007176.shtml), viewed September 2014.
- CALM (2002) Bioregional Summary of the 2002 Biodiversity Audit for Western Australia. Department of Conservation and Land Management, Western Australia.
- DEC (2011) Invasive Plant Prioritisation, Department of Environment and Conversation, Perth.
- DPaW (2014) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. <http://naturemap.dpaw.wa.gov.au/default.aspx> (Accessed September 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.
- G&G (2014) Flora and Vegetation Survey of the Wonmunna Area - Level 2, consultants report prepared by G&G Environmental for Ascot Resources Limited.
- 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

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## 5. Glossary

### Acronyms:

<b>BoM</b>	Bureau of Meteorology, Australian Government
<b>DAA</b>	Department of Aboriginal Affairs, Western Australia
<b>DAFWA</b>	Department of Agriculture and Food, Western Australia
<b>DEC</b>	Department of Environment and Conservation, Western Australia (now DPaW and DER)
<b>DER</b>	Department of Environment Regulation, Western Australia
<b>DMP</b>	Department of Mines and Petroleum, Western Australia
<b>DRF</b>	Declared Rare Flora
<b>DotE</b>	Department of the Environment, Australian Government
<b>DoW</b>	Department of Water, Western Australia
<b>DPaW</b>	Department of Parks and Wildlife, Western Australia
<b>DSEWPaC</b>	Department of Sustainability, Environment, Water, Population and Communities (now DotE)
<b>EPA</b>	Environmental Protection Authority, Western Australia
<b>EP Act</b>	<i>Environmental Protection Act 1986</i> , Western Australia
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (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>PEC</b>	Priority Ecological Community, Western Australia
<b>RIWI Act</b>	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
<b>s.17</b>	Section 17 of the <i>Environment Protection Act 1986</i> , Western Australia
<b>TEC</b>	Threatened Ecological Community

### Definitions:

{DPaW (2013) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

<b>T</b>	<b>Threatened species:</b> Specially protected under the <i>Wildlife Conservation Act 1950</i> , listed under Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna or the Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).  Threatened Fauna and Flora are further recognised by the Department according to their level of threat using IUCN Red List criteria. For example Carnaby's Cockatoo <i>Calyptorhynchus latirostris</i> is specially protected under the <i>Wildlife Conservation Act 1950</i> as a threatened species with a ranking of Endangered.  <u>Rankings:</u> CR: Critically Endangered - considered to be facing an extremely high risk of extinction in the wild. EN: Endangered - considered to be facing a very high risk of extinction in the wild. VU: Vulnerable - considered to be facing a high risk of extinction in the wild.
<b>X</b>	<b>Presumed Extinct species:</b> Specially protected under the <i>Wildlife Conservation Act 1950</i> , listed under Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora (which may also be referred to as Declared Rare Flora).
<b>IA</b>	<b>Migratory birds protected under an international agreement:</b> Specially protected under the <i>Wildlife Conservation Act 1950</i> , listed under Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice. Birds that are subject to an agreement between governments of Australia and Japan, China and The Republic of Korea relating to the protection of migratory birds and birds in danger of extinction.
<b>S</b>	<b>Other specially protected fauna:</b> Specially protected under the <i>Wildlife Conservation Act 1950</i> , listed under Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice.
<b>P1</b>	<b>Priority One - Poorly-known species:</b> Species that are known from one or a few collections or sight records (generally less than five), all on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, Shire, rail reserves and Main Roads WA road, gravel and soil reserves, and active mineral leases and under threat of habitat destruction



or degradation. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes.

**P2 Priority Two - Poorly-known species:**

Species that are known from one or a few collections or sight records, some of which are on lands not under imminent threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, unallocated Crown land, water reserves, etc. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes.

**P3 Priority Three - Poorly-known species:**

Species that are known from collections or sight records from several localities not under imminent threat, or from few but widespread localities with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and known threatening processes exist that could affect them.

**P4 Priority Four - Rare, Near Threatened and other species in need of monitoring:**

- (a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands.
- (b) Near Threatened. Species that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable.
- (c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

**P5 Priority Five - Conservation Dependent species:**

**Species that are not threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.**