



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 6989/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Ian Raymond Faulkner

### 1.3. Property details

Property: Mining Lease 9/135, Miscellaneous Licence 9/26  
Local Government Area: Shire of Carnarvon  
Colloquial name: Boora Pool Sand Project

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
13.10		Mechanical Removal	Sand mining and associated activities.

### 1.5. Decision on application

Decision on Permit Application: Granted  
Decision Date: 5 May 2016

## 2. Site Information

### 2.1. Existing environment and information

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

**Vegetation Description** The application area has been mapped as the following Beard vegetation association:

308: Mosaic: Shrublands; *Acacia sclerosperma* sparse scrub / Succulent steppe; saltbush & bluebush.

**Clearing Description** Boora Pool Sand Project

I R Faulkner proposes to clear up to 13.10 hectares within an application area of approximately 13.154 hectares for the purposes of mineral exploration. The project is located approximately 54 kilometres north-east of Carnarvon within the Shire of Carnarvon.

**Vegetation Condition** Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).

to

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).

**Comment** The proposed clearing is required for the purpose of sand mining of approximately 3000 to 6000 tonnes of material from the Gascoyne River (I R Faulkner, 2010). The depth of mining will be dependent on available material and annual flooding of the Gascoyne River. The area of disturbance at any one time will be a maximum of 2 hectares (I R Faulkner, 2010). Minimal native vegetation is located in the application area (GIS Database). The application area contains large areas devoid of vegetation and areas which have previously been cleared for access tracks. The mining proposal prepared for the project reports a 20 metre exclusion buffer zone will be used to protect existing trees in the application area. The condition of the vegetation under application was determined via interpretation of aerial imagery (GIS Database).

## 3. Assessment of application against Clearing Principles

**Comments** The application area occurs within the Wooramel subregion of the Carnarvon Interim Biogeographical Regionalisation for Australia (IBRA) bioregion (GIS Database). The subregion is characterised by alluvial plains associated with downstream section and deltas of the Gascoyne, Minilya and Wooramel Rivers (CALM, 2002). Typical vegetation includes *Acacia* shrublands (Mulga, Bowgada and *A. coriacea*) over bunch grasses on red sandy ridges and plains (CALM, 2002). The vegetation with the application area is broadly mapped as Beard vegetation association 308; Shrublands; *Acacia sclerosperma* sparse scrub / Succulent steppe; saltbush and bluebush (GIS Database). No on-ground flora or vegetation surveys have been undertaken over the application area. However, interpretation of aerial imagery appears typical of vegetation along the Gascoyne River (GIS Database).

According to available databases, there are no Threatened Ecological Communities (TEC's) or Priority Ecological Communities (PEC's) occurring within or near the application area (GIS Database). There are also no records of Threatened flora recorded within the application area (GIS Database).

A search of DPaW's NatureMap database revealed records of 156 flora species within a 20 kilometre radius of

the application area (DPaW, 2016b). As expected, the genus *Acacia* were well represented with seven species occurring, *Ptilotus*; eight species occurring, *Myriocephalus*; five species occurring and *Cyperus* (Sedge); four species occurring (DPaW, 2016b). Two Priority flora species, *Myriocephalus nudus* (Priority 1) (two records in the surrounding area) and *Chthonocephalus spathulatus* (Priority 3) (one record in the surrounding area) were identified in the database search (DPaW, 2016b). According to available databases, these two Priority flora species were not recorded in the application area (DPaW, 2016a). *M. nudus* may occur in the application area as this species is known to occur in moist areas along rivers and creeks (DPaW, 2016a). However, *M. nudus* is also recorded in granite outcrops and soils of the application area are sandy and alkaline which are not preferred by this species (DPaW, 2016a). It is unlikely individuals of *C. spathulatus* would occur in the application area as this species prefers, red, loamy soils (DPaW, 2016a).

A search of DPaW's NatureMap database revealed records of four fish, 116 bird, one mammal and 17 reptile species within a 20 kilometre radius of the application area (DPaW, 2016b). Given the application area is small and contains areas of previously cleared and disturbed vegetation, the area is not expected to contain a high level of faunal diversity. Clearing for the proposal is small (13.10 hectares) and the application area contains disturbed vegetation. Minimal vegetation also remains in large parts of the application area due to previous clearing for access tracks. The application area is considered to be low in biodiversity. For these reasons, it is unlikely the proposal will result in the clearing of native vegetation that comprises a high level of biodiversity.

Several weeds species are known from the local area and region (DPaW, 2016b). Weed invasion has the potential to alter the biodiversity of an area. 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 available biological databases was undertaken and no Threatened fauna were located in the application area (GIS Database). No fauna surveys have been undertaken over the application area. A search of DPaW's NatureMap database revealed records of ten conservation significant fauna within 20 kilometres of the application area (DPaW, 2016b):

- Rainbow Bee-eater (*Merops ornatus* – Migratory)
- Common Sandpiper (*Actitis hypoleucos* – Migratory)
- Eastern Great Egret (*Ardea modesta* – Migratory)
- White-bellied Sea-Eagle (*Haliaeetus leucogaster* – Migratory)
- Common Greenshank (*Tringa nebularia* – Migratory)
- Fairy Shrimp (*Branchinella denticulata* - Priority1)
- Fairy Shrimp (*Branchinella wellardi* - Priority 1)
- Fairy Shrimp (*Myriocephalus nudus* – Priority 1)
- Fairy Shrimp (*Parartemia contracta* – Priority 1)
- Fortescue Grunter (*Leiopotherapon aheneus* - Priority 4)

It is unlikely that any of the Migratory species identified above, would rely solely on the application area as suitable habitat exists in surrounding areas. The invertebrate and fish species occur in riverine environments and will not be impacted by the proposal. The majority of clearing required for the proposal will be undertaken for stockpile and access areas. Mining of sand will occur when water has receded from the Gascoyne River (I R Faulkner, 2010). Given the existing disturbance, minimal areas of vegetation existing in the application area and the small amount of clearing proposed, the application area is not likely to contain significant habitat for fauna species indigenous to Western Australia.

The application area falls within the Carnarvon Interim Biogeographic Regionalisation of Australia (IBRA) bioregion in which approximately 99.2% of the pre-European vegetation remains (Government of Western Australia, 2014; GIS Database). The vegetation of the application area has been mapped as Beard vegetation association 308 (GIS Database). This vegetation association has over 99% remaining at a State level and over 99% remains at a bioregional level (Government of Western Australia, 2014). Beard vegetation association 308 is considered to be of 'Least Concern' in the bioregion as greater than 50% of the pre-European extent of native vegetation exists (Department of Natural Resources and Environment, 2002). Large areas of intact native vegetation are located in the surrounding area. The application area is neither a remnant nor does it form part of any remnants within the local area (GIS Database).

The Gascoyne River is located within the application area (GIS Database). Although no vegetation will be cleared from the river, the access track and stockpile areas contain vegetation which is considered to be in association with a watercourse (I R Faulkner, 2010; GIS Database). No mining activities will occur on the riverbank (I R Faulkner, 2010). While the proposed clearing will impact riparian vegetation, the amount of riparian vegetation to be cleared is limited to the stockpile and access track areas (I R Faulkner, 2010). Information provided in the mining proposal confirmed clearing required for access track and stockpile areas is approximately 3.25 hectares (I R Faulkner, 2010). Based on the above, the proposed clearing is at variance to clearing Principle f. However, the amount of vegetation to be cleared is small and clearing activities are of low impact and unlikely to adversely impact the watercourse.

The Department of Water (DoW) has provided comment on the clearing permit application and mining proposal. The DoW does not object to the clearing permit application and considers clearing associated with the proposal to be of low risk to water resources (DoW, 2016). The DoW requested clearing activities to be managed according to the mining tenement conditions including all land disturbances (access tracks, laydown, stockpile and excavation areas) as a result of sand mining to be backfilled and rehabilitated using stockpiled materials (DoW, 2016). Potential impacts to the Gascoyne River may be minimised through the implementation

of a watercourse management condition.

The application area falls within the River Land System (GIS Database). The River land system consists of active flood plains and major rivers supporting grassy Eucalypt woodlands, tussock grasslands and soft spinifex grasslands (Payne, et al., 1987). Flood plains and river terraces located in this area are subject to regular overbank flooding from major channels, watercourses, sandy banks and poorly defined levees. The River land system is not normally susceptible to erosion (Payne, et al., 1987). The proposed clearing of up to 13.10 hectares of vegetation is unlikely to cause large scale land degradation.

No Public Drinking Water Source Areas are located within or in the vicinity of the application area (GIS Database). Although, the Gascoyne River is located within the application area it is unlikely that clearing required for the proposal will cause deterioration in the quality of surface water, including sedimentation, erosion, turbidity or eutrophication of water bodies on-site or off-site (GIS Database).

The application area receives low mean annual rainfall (233 millimetres) and high average annual evaporation rate (approximately 2,400 millimetres) (BoM, 2016). The Gascoyne River is subject to seasonal flooding. Whilst large, annual 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.

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

**Methodology** BoM (2016)  
CALM (2002)  
Department of Natural Resources and Environment (2002)  
DPaW (2016a)  
DPaW (2016b)  
DoW (2016)  
Government of Western Australia (2014)  
I R Faulkner (2010)  
Payne, et al. (1987)

GIS Database:  
- DPaW Tenure  
- Hydrography, linear  
- IBRA WA (Regions - Sub Regions)  
- Imagery  
- Pre-European Vegetation  
- Public Drinking Water Source Areas  
- Rangeland Land System Mapping  
- TEC/PEC – Boundaries  
- TEC/PEC – Buffer  
- Threatened Fauna  
- Threatened and Priority Flora

#### **Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.**

**Comments** There is one native title claim (WC1997/028) over the application area (GIS Database). This claim has been registered with the National Native Title Tribunal on behalf of the claimant groups (GIS Database). However, the 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 (DAA, 2016). 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 clearing permit application was advertised on 21 March 2016 by the Department of Mines and Petroleum inviting submissions from the public. There were no submissions received.

**Methodology** DAA (2016)

## 4. References

- BoM (2016) Bureau of Meteorology Website - Climate Data Online, Doorwarrah. Bureau of Meteorology. [http://www.bom.gov.au/climate/averages/tables/cw\\_007091.shtml](http://www.bom.gov.au/climate/averages/tables/cw_007091.shtml) (Accessed 2 May 2016).
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Carnarvon (CAR02 - Wooramel subregion) Department of Conservation and Land Management, Perth, Western Australia.
- DAA (2016) Aboriginal Heritage Inquiry System. Department of Aboriginal Affairs. <http://maps.dia.wa.gov.au/AHIS2> (Accessed 22 April 2016).
- 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.
- DPaW (2016a) Florabase - the Western Australian Flora. Flora Species Search, Department of Parks and Wildlife, Western Australian Herbarium. <http://florabase.dpaw.wa.gov.au/> (Accessed 4 May 2016).
- DPaW (2016b) NatureMap - Mapping Western Australia's Biodiversity, Department of Parks and Wildlife. <https://naturemap.dpaw.wa.gov.au/> (Accessed 22 April 2016).
- DoW (2016) Advice received in relation to Clearing Permit Application CPS 6989/1. Mid-West Region - Department of Water, Western Australia, March 2016.
- Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Western Australian Department of Parks and Wildlife, Perth, Western Australia.
- I R Faulkner (2010) Mining Proposal for Small Operation – Boora Pool (Registration ID 33173). Document submitted to the Department of Mines and Petroleum, I R Faulkner, April, 2010.
- Payne A. L., Curry P.J and Spencer G.F (1987) Technical Bulletin - An Inventory and Condition Survey of the Rangelands in the Carnarvon Basin of Western Australia, No. 73. Department of Agriculture, Government of Western Australia, Perth, Western Australia.

## 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>TEC</b>	Threatened Ecological Community

### Definitions:

{DPaW (2015) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

**T**      **Threatened species:**  
Published as Specially Protected under the *Wildlife Conservation Act 1950*, listed under Schedules 1 to 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).

**Threatened fauna** is that subset of 'Specially Protected Fauna' declared to be 'likely to become extinct' pursuant to section 14(4) of the Wildlife Conservation Act.

**Threatened flora** is flora that has been declared to be 'likely to become extinct or is rare, or otherwise in need of special protection', pursuant to section 23F(2) of the Wildlife Conservation Act.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

- CR Critically endangered species**  
Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
- EN Endangered species**  
Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
- VU Vulnerable species**  
Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
- EX Presumed extinct species**  
Species which have been adequately searched for and there is no reasonable doubt that the last individual has died. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora.
- IA Migratory birds protected under an international agreement**  
Birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and the Bonn Convention, relating to the protection of migratory birds. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- CD Conservation dependent fauna**  
Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- OS Other specially protected fauna**  
Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- P Priority species**  
Species which are poorly known; or  
Species that are adequately known, are rare but not threatened, and require regular monitoring.  
Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.
- P1 Priority One - Poorly-known species:**  
Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.
- P2 Priority Two - Poorly-known species:**  
Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.
- P3 Priority Three - Poorly-known species:**  
Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations 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 locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

**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 are close to qualifying for Vulnerable, but are not listed as Conservation Dependent.

(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

**Principles for clearing native vegetation:**

- (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.
- (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.
- (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare 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.
- (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.
- (f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
- (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
- (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.
- (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.
- (j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.