Government of **Western Australia**
Department of **Mines and Petroleum**

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 7153/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Peter Connolly

1.3. Property details

Property: Mining Lease 04/439

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4.706		Mechanical Removal	Sand Extraction

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 29 September 2016

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description The clearing permit application area has been broadly mapped as the following Beard vegetation association (GIS Database):

750: Shrublands, pindan; *Acacia tumida* shrubland with Grey Box (*Eucalyptus tectifica*)

Clearing Description Peter Connolly proposes to clear up to 4.706 hectares of native vegetation within a total boundary of the same size, for the purpose of sand extraction. The project is located approximately 20 metres from the town site boundary of Broome, in the Shire of Broome.

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

To

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

Comment The vegetation condition within the application area has been determined by Bioscience Pty Ltd (2008). Most of the vegetation within the application area appears to be in excellent condition. However, disturbed vegetation within the application area for the purpose of tracks is in a completely degraded condition (GIS Database).

3. Assessment of application against Clearing Principles

Comments The application area is located within the Pindanland subregion of the Dampierland Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). The Pindanland IBRA subregion comprises of sandplains of the Dampier Peninsula and western part of Dampier Land, including the hinterland of Eighty Mile Beach, and the vegetation is described primarily as Pindan (Graham 2001).

The application area does not fall within the boundaries of any Threatened Ecological Community (TEC) (DPaW, 2016a, GIS Database). The application area lies two kilometres from the Roebuck Bay mudflats TEC and 1.3 kilometres from the vine thickets TEC. The application area does not occur within a conservation area (GIS Database).

The application area falls within a localised occurrence of a Priority 1 Ecological Community (PEC), the Relict dune system dominated by extensive stands of *Mangarr* (Minyjuru) *Sersalisia* (DPaW, 2016a). This PEC is known from 19 occurrences totalling 261 hectares (DPaW, 2016a). The application area is 4.706 hectares of which 2.7 hectares is mapped as the Priority 1 PEC (DPaW, 2016a). The proposed clearing will therefore impact approximately 1% of the PEC and is unlikely to be significant.

The application area is wholly comprised of Beard vegetation association 750 (GIS Database). Greater than 99% of the Pre-European extent of this association remains within the Dampierland bioregion (Government of Western Australia, 2014). Therefore the area proposed to be cleared does not represent a significant remnant of native vegetation within an area that has been extensively cleared.

A flora and vegetation survey was undertaken over Mining Leases 04/208, 04/209 and 04/439 by Bioscience Pty Ltd in May 2008 (Bioscience, 2008). Due to the age of the survey provided and the possibility of the presence of Threatened and Priority flora in the application area, advice from DPaW was obtained and used to assess potential impacts to flora. Advice from DPaW is that several species that may potentially occur within the application area have been listed as Priority flora since the flora and vegetation survey was undertaken in May 2008 (DPaW, 2016b). These species include:

- *Corymbia paractia* – Priority 1 as listed by DPaW
- *Jacquemontia* sp. Broome – Priority 1 as listed by DPaW
- *Phyllanthus eremicus* – Priority 3 as listed by DPaW
- *Triodia caelestialis* – Priority 3 as listed by DPaW

A desktop survey of the application area with a 30 kilometre radius buffer identified several additional flora species of conservation significance as potentially occurring within the area (DPaW, 2016b):

- *Seringia exastia* (*Keraudrenia exastia*) – Threatened under the *Wildlife Conservation Act 1950*
- *Aphyllodium parvifolium* – Priority 1 as listed by DPaW
- *Bonamia oblongifolia* – Priority 1 as listed by DPaW
- *Goodenia brynesii* – Priority 3 as listed by DPaW

Potential impacts to Threatened and Priority flora may be minimised by the implementation of a flora management condition.

No fauna survey has been undertaken over the application area. Advice from DPaW is that it is unlikely the site supports any Threatened or Priority fauna with the exception of the Greater Bilby *(Macrotis lagotis*) (DPaW, 2016c). The application area falls within current known distributions of the Greater Bilby. There are records from the past two years within five kilometres of the application area in similar pindan shrublands habitat, including in areas of disturbance such as road verges and soil heaps (DPaW, 2016c). The proposed clearing has the potential to impact burrows and may potentially result in direct mortality (DPaW, 2016c). Potential impacts to the Greater Bilby may be minimised by the implementation of a fauna management condition.

Several weed species were recorded during the flora and vegetation survey (Bioscience, 2008). The application area is adjacent to a landfill facility managed by the Shire of Broome, and this may also provide a potential seed source for weed species (GIS Database). Weeds have the potential to out-compete native flora and reduce 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.

Given an average annual rainfall of 575 millimetres and an average annual evaporation rate of 3200 millimetres (GIS Database), any surface water resulting from normal rainfall events is likely to be relatively short lived. The application area is within the Cape Leveque Coast Basin catchment area which covers 2,137,723 hectares (GIS Database). Given the size of the area to be cleared (4.706 hectares) in relation to the size of the catchment area, the proposed clearing is not likely to increase the incidence or intensity of flooding. As evaporation rate greatly exceeds rainfall it is unlikely that the small scale of clearing will result in increased groundwater recharge or lead to a reduction in groundwater quality.

An area immediately to the north and north-east of the application area is subject to inundation. Most rainfall occurs over the December to March period (Bureau of Meteorology, 2016). Therefore during significant rainfall events it is likely that some of the application area may experience inundation. No clearing is to be undertaken during this period (Connolly, 2013).

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 not likely to be at variance with Principles (d), (f), (h), (i), and (j), may be at variance with Principles (a), (b), (c), (g), and is not at variance to Principle (e).

Methodology

Bioscience (2008)
Connolly (2013)
DPaW (2016a)
DPaW (2016b)
DPaW (2016c)
Graham (2001)
Government of Western Australia (2015)

GIS Database:
- DPaW Tenure
- IBRA Australia
- Imagery
- Hydrography, linear
- Pre – European Vegetation
- Threatened and Priority Flora List
- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers

Officer Lauren Stirbinskis

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 (WC1999/023) over the area under application (DAA, 2016). This claim has been registered with the Native Title Tribunal on behalf of the claimant group. 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 (ie. 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 two registered Sites of Aboriginal Significance located in the area applied to clear (DAA, 2016). 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 25 July 2016 by the Department of Mines and Petroleum inviting submissions from the public. One submission was received, raising concerns in relation to native title rights, impacts to flora and fauna, and the age of the flora and fauna survey information provided by the proponent. A written response was provided on the matter raised.

Methodology DAA (2016)

Officer Lauren Stirbinskis

4. References

Bioscience (2008) Environmental Report Broomecrete Mine. Mining tenements M04/208, M04/209, M04/439. Report prepared for Peter Connolly, by Bioscience Pty Ltd, Western Australia, May 2008.

DAA (2016) Aboriginal Heritage Inquiry System, Department of Aboriginal Affairs, Perth, Western Australia < http://maps.dia.wa.gov.au> Accessed August 2016.

DPaW (2016a) Advice received in relation to Clearing Permit Application CPS 7153/1 – Threatened and Priority Ecological Communities. Department of Parks and Wildlife, Western Australia, September 2016.

DPaW (2016b) Advice received in relation to Clearing Permit Application CPS 7153/1 – Threatened and Priority Flora. Department of Parks and Wildlife, Western Australia, September 2016.

DPaW (2016c) Advice received in relation to Clearing Permit Application CPS 7153/1 – Threatened and Priority Fauna. Department of Parks and Wildlife, Western Australia, September 2016.

Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2014. WA Department of Environment and Conservation, Perth.

Graham (2001) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Dampierland 2 (DL2 – Pindanland subregion) Department of Conservation and Land Management, Western Australia.

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

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DPaW and DER)
DER	Department of Environment Regulation, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DRF	Declared Rare Flora
DotE	Department of the Environment, Australian Government
DoW	Department of Water, Western Australia
DPaW	Department of Parks and Wildlife, Western Australia
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DotE)
EPA	Environmental Protection Authority, Western Australia
EP Act	*Environmental Protection Act 1986*, Western Australia
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	*Rights in Water and Irrigation Act 1914*, Western Australia
TEC	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.