



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 8148/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Iluka Resources Limited

1.3. Property details

Property: Mineral Sands (Eneabba) Agreement Act 1975, Mining Lease 267SA (AM 70/267)
Local Government Area: Shire of Carnamah
Colloquial name: Jennings Loadout Rehabilitation Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
6.26		Mechanical Removal	Rehabilitation

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 20 September 2018

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	<p>The vegetation of the application area is broadly mapped as the following Beard vegetation association:</p> <p>379: Shrublands; scrub-heath on lateritic sandplain in the central Geraldton Sandplain Region (GIS Database).</p> <p>Vegetation association mapping has not been undertaken over the application area. Iluka Resources Limited describes the vegetation as small portions of degraded native vegetation and regrowth on previously cleared areas (Iluka, 2018).</p>
Clearing Description	<p>Jennings Loadout Rehabilitation Project</p> <p>Iluka Resources Limited proposes to clear up to 6.26 hectares of native vegetation within a boundary of approximately 6.26 hectares, for the purpose of rehabilitation. The project is located approximately 3.5 kilometres south-east of Eneabba, within the Shire of Carnamah.</p>
Vegetation Condition	<p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).</p> <p>To:</p> <p>Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).</p>
Comment	<p>The vegetation condition was derived from supporting information provided by Iluka Resources Limited (2018).</p> <p>The proposed clearing is for rehabilitation works at the Jennings loadout area, within the Eneabba East Operations. Iluka will be undertaking clearing around the edges of an existing cleared area as part of earthworks to achieve final landform design (Iluka, 2018).</p>

3. Assessment of application against Clearing Principles

Comments

The application area occurs within the Lesueur Sandplain subregion of the Geraldton Sandplains Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is characterised by shrub-heaths rich in endemics that occur on a mosaic of lateritic mesas, sandplains, coastal sands and limestones (CALM, 2001).

Iluka proposes to clear native regrowth and some areas of native vegetation along the edges of an existing cleared area at the Jennings loadout area, which is associated with Iluka Resources Limited's Eneabba East Operations (Iluka, 2018). The application area covers 6.26 hectares, however approximately 2.25 hectares is

considered bare ground (Iluka, 2018). The clearing will facilitate rehabilitation earthworks to achieve the final desired landform closure design and allow for permanent placement of native topsoil (Iluka, 2018).

The vegetation proposed to be cleared is almost entirely comprised of vegetation in a degraded or completely degraded condition (Keighery, 1994). The areas proposed to be cleared are not considered to represent an area of high biological diversity, as larger more intact areas of native vegetation occur in the surrounding areas (Iluka, 2018; GIS Database). The proposed clearing may potentially introduce weeds to the surrounding environment, which may negatively impact on biodiversity in the area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

There are no Threatened or Priority Ecological Communities known to occur in the application area (Iluka, 2018; GIS Database). The nearest Threatened Ecological Community is located approximately eight kilometres south-west of the application area (GIS Database). This community is restricted to ferricrete soils, which are not typical within the Eneabba East Operations (Iluka, 2018).

A targeted Threatened and Priority flora survey was undertaken over a 16 hectare area, which includes the application area (Mattiske, 2017). The flora survey did not identify any Threatened flora species within the survey area, however three individuals of *Paracaleana dixonii* were found within 25 metres of the survey boundary (Mattiske, 2017). Six Priority flora species were also recorded by Mattiske (2017), which include:

- *Verticordia argentea* (P2)
- *Grevillea leptopoda* (P3)
- *Hemiandra* sp. Eneabba (H. Demarz 3687) (P3)
- *Verticordia fragrans* (P3)
- *Calytrix superba* (P4)
- *Verticordia aurea* (P4)

The most abundant priority flora species recorded were the two Priority 3 species *Verticordia fragrans* and *Grevillea leptopoda*, which accounted for 90% of all priority flora species found (Mattiske, 2017).

The 16 hectare area surveyed by Mattiske represents the initial boundary of the rehabilitation project. The applicant subsequently reduced the application area down to 6.26 hectares to establish a 50 metre buffer to the three locations of *Paracaleana dixonii*, and reduce impacts to Priority flora (Iluka, 2018).

The proposed clearing will directly impact on 65 individuals of *Verticordia fragrans*, four individuals of *Verticordia aurea*, three individuals of *Grevillea leptopoda*, two individuals of *Hemiandra* sp. Eneabba (H. Demarz 3687) and one individual each of *Verticordia argentea* and *Calytrix superba* (Iluka, 2018). According to Mattiske (2017), these six Priority flora species are well represented in the region, and are not restricted to the Eneabba Operations area. The clearing footprint for the rehabilitation works has been reduced to ensure higher density areas of Priority flora are avoided and buffers are maintained to Threatened flora species. The proposed clearing is therefore not considered likely to have a significant impact on Threatened or Priority flora.

The application area contains relatively sparse and degraded native vegetation that is unlikely to provide much habitat value for local fauna. There are extensive areas of undisturbed and un-fragmented native vegetation in the surrounding area that would contain higher value habitat for fauna (Iluka, 2018; GIS Database).

The proposed clearing will not impact on any conservation areas. The nearest conservation area is the South Eneabba Nature Reserve, which is approximately 3.5 kilometres to the south of the application area (GIS Database).

The application area does not contain any watercourses or wetlands, and the clearing of 6.26 hectares of highly disturbed native vegetation and regrowth is not likely to impact on any surface water or groundwater resources or cause appreciable land degradation (Iluka, 2018; GIS Database).

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

Methodology CALM (2001)
Iluka (2018)
Mattiske (2017)

GIS Database:
- DPaW Tenure
- Hydrography, Lakes
- Hydrography, Linear

- IBRA Australia
- Imagery
- Pre-European Vegetation
- Public Drinking Water Source Areas
- Soils, Statewide
- Threatened and Priority Ecological Communities boundaries
- Threatened and Priority Ecological Communities buffers
- Threatened and Priority Flora
- Threatened Fauna

Planning Instrument, Native Title, previous EPA decision or other matter.

Comments

There is one Native Title claim (WC2017/002) over the area under application (DPLH, 2018). 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 (DPLH, 2018). 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 Water and Environmental Regulation and the Department of Biodiversity Conservation and Attractions, 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 application was advertised on 13 August 2018 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

Methodology DPLH (2018)

4. References

- CALM (2001) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management.
- DPLH (2018) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage.
<http://maps.daa.wa.gov.au/AHIS/> (Accessed 12 September 2018).
- Iluka (2018) Jennings Loadout Eneabba East Operations, Clearing Permit Application, Supporting Information for CPS 8148/1. Iluka Resources Limited, July 2018.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske (2017) Threatened and Priority Survey of Jennings Loadout Area, Eneabba Operations. Report prepared for Iluka Resources Limited, by Mattiske Consulting Pty Ltd, December 2017.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DBCA	Department of Biodiversity Conservation and Attractions, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
DEE	Department of the Environment and Energy, Australian Government
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia
DMP	Department of Mines and Petroleum, Western Australia (now DMIRS)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora
DoE	Department of the Environment, Australian Government (now DEE)
DoW	Department of Water, Western Australia (now DWER)

DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
DWER	Department of Water and Environmental Regulation, Western Australia
EPA	Environmental Protection Authority, Western Australia
EP Act	<i>Environmental Protection Act 1986</i> , Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (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	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

{DPaW (2017) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

T	<p>Threatened species: Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, 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).</p> <p>Threatened fauna is that subset of ‘Specially Protected Fauna’ declared to be ‘likely to become extinct’ pursuant to section 14(4) of the <i>Wildlife Conservation Act 1950</i>.</p> <p>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 <i>Wildlife Conservation Act 1950</i>.</p> <p>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.</p>
CR	<p>Critically endangered species Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.</p>
EN	<p>Endangered species Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.</p>
VU	<p>Vulnerable species Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.</p>
EX	<p>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 <i>Wildlife Conservation Act 1950</i>, 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.</p>
IA	<p>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 <i>Wildlife Conservation Act 1950</i>, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.</p>
CD	<p>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 <i>Wildlife Conservation Act 1950</i>, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.</p>
OS	<p>Other specially protected fauna Fauna otherwise in need of special protection to ensure their conservation. Published as Specially</p>

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.

