



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 8119/1

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Redstone Resources Limited

1.3. Property details

Property: Exploration Licence 69/3456

Local Government Area: Shire of Ngaanyatjaraku

Colloquial name: Tollu Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
16		Mechanical Removal, Driving over vegetation	Mineral Exploration

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 The clearing permit application area consists of five separate areas. The clearing permit application area is broadly mapped as the following Beard vegetation associations:
236: Hummock grasslands, shrub steppe; mulga and mallee (marble gum) over hard spinifex; and
252: Hummock grasslands, shrub steppe; mulga and mallee over soft spinifex (GIS Database).

A flora and vegetation survey has not been conducted over the application area.

Clearing Description Tollu Project.
Redstone Resources Limited propose to clear up to 16 hectares of native vegetation within a boundary of approximately 869 hectares, for the purpose of mineral exploration. The project is located approximately 850 kilometres northeast of Kalgoorlie and approximately 60 kilometres west-southwest of the Western Australia-South Australia-Northern Territory border, in the Shire of Ngaanyatjaraku.

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

Comment The vegetation condition was derived from analysis of aerial imagery.

3. Assessment of application against Clearing Principles

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

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

The clearing permit application area is located within the Central subregion of the Interim Biogeographic Regionalisation for Australia (IBRA) Great Victoria Desert Bioregion (GIS Database). The Central subregion is described as arid active sand-ridge desert with extensive dune fields of deep Quaternary aeolian sands, and occasional breakaways and quartzite hills (CALM, 2002). Vegetation is primarily tree steppe of *Eucalyptus gongylocarpa*, Mulga and *E. youngiana* over hummock grassland dominated by *Triodia basedowii* on the aeolian sands. *Acacia* dominates colluvial soils with *Eremophila* and *Santalum* spp., halophytes are confined to edges of salt lakes and saline drainage systems (CALM, 2002).

The region is rich and diverse in both its flora and fauna, however, most species are wide ranging and usually occur in at least one, and often several adjoining subregions (CALM, 2002).

Flora and fauna surveys have not been conducted over the application area and, due to the remoteness of the location, flora records in the region are very limited. No Threatened flora or Threatened or Priority Ecological

Communities are known to occur within the application area (DPaW, 2018; GIS Database). Several fauna species of conservation significance and several Priority flora species have been recorded within or in close proximity to the application area (DPaW, 2018; GIS Database).

Clearing activities may spread or introduce weeds, which 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.

The landforms, vegetation associations and fauna habitat types found within the application area are well represented within the region (EnviroWorks, 2012; GIS Database). The application area is unlikely to represent an area of higher biodiversity than surrounding areas, in either a local or regional context.

The low impact nature of the proposed clearing of up to 16 hectares for exploration activities within a total application area of approximately 869 hectares, is unlikely to have any significant impact on the biological diversity of the region.

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

Methodology CALM (2002)
DPaW (2018)
Enviroworks (2012)

GIS Database:
- IBRA Australia
- Pre-European Vegetation
- Threatened and Priority Ecological Communities boundaries
- Threatened and Priority Ecological Communities buffered
- Threatened and Priority Flora
- Threatened Fauna

(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 fauna habitats within the application area are common and widespread within the region (GIS Database), and the proposed clearing is likely to have minimal impacts on available fauna habitats in a regional context.

A fauna survey has not been conducted over the application area. Searches of available databases identified several fauna species of conservation significance with the potential to occur within the application area (DPaW, 2018; EnviroWorks, 2012). The majority are wide ranging and unlikely to be dependent on specific habitats within the application area, with the notable exception of Malleefowl.

Malleefowl (*Leipoa ocellata*), listed as Vulnerable under the *Wildlife Conservation Act 1950* and the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), have been recorded in the local area within the last two years (DPaW, 2018; GIS Database). Potential impacts to Malleefowl as a result of the proposed clearing, may be minimised by the implementation of a fauna management condition prohibiting disturbance of active mounds during the breeding season (September to January).

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

Methodology DPaW (2018)
EnviroWorks (2012)

GIS Database:
- Imagery
- Pre-European Vegetation
- Threatened Fauna

(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**

There are no known records of Threatened flora within the application area (GIS Database), and searches of available databases did not identify any Threatened flora with the potential to occur.

The vegetation associations within the application area are common and widespread within the region (GIS Database), and the vegetation proposed to be cleared is unlikely to be necessary for the continued existence of any species of Threatened (rare) flora.

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

Methodology GIS Database:
- Pre-European Vegetation
- Threatened and Priority Flora

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

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

There are no known Threatened Ecological Communities (TECs) located within or in close proximity to the application area (GIS Database). Furthermore, there are no listed TEC's within the Great Victoria Desert Bioregion (GIS Database).

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

Methodology GIS Database:
- Threatened and Priority Ecological Communities boundaries
- Threatened and Priority Ecological Communities 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 is in a remote location within the Great Victoria Desert Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 99-100% of the pre-European vegetation still exists in this IBRA Bioregion (Government of Western Australia, 2018).

The application area is broadly mapped as Beard vegetation associations:
236: Hummock grasslands, shrub steppe; mulga and mallee (marble gum) over hard spinifex; and
252: Hummock grasslands, shrub steppe; mulga and mallee over soft spinifex (GIS Database).

Approximately 99-100% of the pre-European extent of each of these vegetation associations remains uncleared at both the state and bioregional level (Government of Western Australia, 2018).

The Great Victoria Desert Bioregion remains largely uncleared (Government of Western Australia, 2018; GIS Database). Therefore, the application area does not represent a remnant of native vegetation in an area that has been extensively cleared.

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

Methodology Government of Western Australia (2018)

GIS Database:
- IBRA Australia
- Imagery
- Pre-European Vegetation

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

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

There are no watercourses or wetlands within the areas proposed to be cleared (EnviroWorks, 2012; GIS Database).

There are some minor ephemeral drainage lines in surrounding areas, but these are not in close proximity to the application areas, and the vegetation proposed to be cleared is not considered to be riparian vegetation (EnviroWorks, 2012; GIS Database).

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

Methodology EnviroWorks (2012)

GIS Database:
- Hydrography, Lakes
- Hydrography, linear

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments Proposal is not likely to be at variance to this Principle

The proposed clearing is for mineral exploration and access tracks. The access tracks will not be actively cleared, but vegetation will be driven over (EnviroWorks, 2012).

The low impact nature of the proposed clearing of up to 16 hectares within a total application area of approximately 869 hectares for the purpose of mineral exploration is unlikely to cause appreciable land degradation.

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

Methodology EnviroWorks (2012)

(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 is located within an area known as the Ranges of the Western Desert, which is listed on the Register of National Estate for its unique natural values (GIS Database). The ranges of the Western Desert covers an area of approximately eight million hectares (GIS Database). The area of the proposed clearing (16 hectares) is unlikely to have any significant impact on the natural values of this area.

The nearest DBCA (formerly DPaW) managed land is the Gibson Desert Nature Reserve which is located approximately 200 kilometres northwest of the application area, at its nearest point (GIS Database).

The low impact and temporary nature of the proposed clearing is unlikely to have any significant impact on the environmental values of any conservation area.

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

Methodology GIS Database:
- DPaW Tenure
- Environmentally Sensitive Areas
- Register of National Estate

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments Proposal is not likely to be at variance to this Principle

There are no Public Drinking Water Source Areas within or in close proximity to the application areas (GIS Database).

There are no watercourses or wetlands within or in close proximity to the application areas (GIS Database). Creek lines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall (CALM, 2002). The proposed clearing is unlikely to result in significant changes to surface water flows.

The proposed clearing is unlikely to cause deterioration in the quality of underground water.

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

Methodology CALM (2002)

GIS Database:
- Hydrography, Linear
- Public Drinking Water Source Areas

(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

The climate of the region is arid, with a low average rainfall of approximately 150-180 millimetres per year (CALM, 2002). Drainage lines in the area are dry for most of the year, only flowing briefly immediately following significant rainfall (CALM, 2002).

There are no water courses or waterbodies within or in close proximity to the application area (GIS Database). Seasonal drainage lines occur in surrounding areas and temporary localised flooding may occur briefly following heavy rainfall events. However, the proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.

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

Methodology CALM (2002)

GIS Database:

- Hydrographic Catchments - Catchments
- Hydrography, linear

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

Comments

The clearing permit application was advertised on 23 July 2018 by the Department of Mines, Industry Regulation and Safety (DMIRS) inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim 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 tenements have 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.

Methodology DPLH (2018)

4. References

- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DPaW (2018) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. <https://naturemap.dpaw.wa.gov.au/> (Accessed 14 September 2018).
- DPLH (2018) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage. <http://maps.daa.wa.gov.au/AHIS/> (Accessed 14 September 2018).
- EnviroWorks (2012) Desktop Flora and Fauna Study of Tenement E69/2450. Report prepared for Redstone Resources, by EnviroWorks Consulting, October 2012.
- Government of Western Australia (2016) 2016 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2016. WA Department of Parks and Wildlife, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

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	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). 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 <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.
EN	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.

- 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.