Government of Western Australia
Department of Mines, Industry Regulation and Safety

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 7597/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Redstone Resources Limited**

1.3. Property details

Property: Exploration Licence 69/2450
Local Government Area: Shire of Ngaanyatjarraku
Colloquial name: Tollu Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application:
Decision Date:

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. One Beard vegetation association has been mapped within the application area (GIS Database):

252: Hummock grasslands, shrub steppe; mulga and mallee over soft spinifex

Clearing Description Tollu Project.
Redstone Resources Limited proposes to clear up to 30.28 hectares of native vegetation within a total boundary of approximately 1525.25 hectares, for the purpose of mineral exploration. The project is located approximately 981 kilometres north-northeast of Kalgoorlie close to the Western Australian-South Australian border, in the Shire of Ngaanyatjarraku.

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

To:

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).

Comment Vegetation condition was determine from information provided by the proponent and a flora desktop survey (EnviroWorks Consulting, 2012)

3. Assessment of application against clearing principles

Comments

Redstone Resources Limited has applied to clear up to 30.28 hectares of native vegetation for the purpose of mineral exploration.

The application areas are located within the Great Victorian Desert Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database). It consists of arid active sand-ridge desert with extensive dune fields of deep Quaternary aeolian sands overlying Permian strata of the Gunbarrel Basin (EnviroWorks Consulting, 2012).

A flora and fauna desktop assessment was conducted by EnviroWorks Consulting Pty Ltd over the application areas in October 2012 (EnviroWorks Consulting, 2012). One Priority flora species *Eucalyptus sparsa* (P3) was identified within the application areas. The applicant has committed to avoiding Priority flora species within the application areas and therefore the proposed clearing is unlikely to have an impact on this Priority flora species. No Threatened flora was identified within the application areas (EnviroWorks Consulting, 2012; GIS Database). No Priority or Threatened Ecological Communities are known to occur within the application areas (EnviroWorks, 2012; GIS Database).

No significant fauna habitats were identiifed within the application areas during the October 2012 flora and fauna survey and it is considered unlikely that any conservation signficant fauna species recorded in database searches rely exclusively on fauna habitats present in the application areas (EnviroWorks Consulting, 2012). The application areas are considered to be largely continous grassland (EnviroWorks Consulting, 2012).

Malleefowl (*Leipoa ocellata*) have been previously recorded near the application areas (DPaW, 2017b). Potential impacts to Malleefowl mounds as a result of the proposed clearing may be minimised by the implementation of a Malleefowl management condition.

According to available databases the application areas are not located within a Public Drinking Water Source Area (GIS Database). There are no permanent water bodies or watercourses within the application areas (EnviroWorks Consulting, 2012; GIS Database). There are several minor non-perennial drainage lines that intersect the application areas (GIS Database). The surface flows of these drainage lines are likely to be dry most of the year and it is considered unlikely that the proposed clearing will cause or exacerbate the incidence of flooding or localised waterlogging (EnviroWorks Consulting, 2012; GIS Database).

According to available databases, groundwater salinity within the application areas are between 3,000 and 15,000 milligrams/Litre Total Dissolved Solids (TDS) (GIS Database). This is considered to be relatively saline. Given the size and nature of the proposed clearing it is unlikley that the clearing will cause groundwater or surface water quality to alter significantly.

The extent of clearing proposed is limited to a relatively small area (30.28 hectares) therefore the likelihood of significant land degradation impacts resulting from the proposed clearing is considered low.

The application areas are located within the Basin Warburton catchment area (GIS Database). Given the size of the area to be cleared (30.28 hectares) in relation to the size of the catchment area (17,203,335 hectares) (GIS Database), the proposed clearing is not likely to increase the potential of flooding on a local or catchment scale.

Weeds have the potential to occur within the application areas (DPaW, 2017a; EnviroWorks Consulting, 2012). Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

The application areas have 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), is not likely to be at variance to Principles (a), (b), (c), (d), (g), (h), (i), and (j) and is not at variance to Principle (e).

Methodology

CALM (2002)
DPaW (2017a)
DPaW (2017b)
EnviroWorks Consulting (2012)

GIS Database:
- DPaW Tenure
- Groundwater Salnity, Statewide
- Hydrography, linear
- Hydrographic Catchments – Catchments
- IBRA Australia
- Pre-European Vegetation
- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers

- Threatened and Priority Flora

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

Comments: There are no native title claims over the areas under application (Department of Planning, Lands and Heritage, 2017). 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 that intersect with the application areas (Department of Planning, Lands and Heritage, 2017). 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 Biodiversity Conservation and Attractions and the Department of Water and Environmental Regulation, 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 5 June 2017 by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) inviting submissions from the public. No submissions were received in relation to this application.

Methodology: Department of Planning, Lands and Heritage (2017)

4. References

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management, Western Australia

Department of Planning, Lands and Heritage (2017) Aboriginal Heritage Inquiry System, Department of Planning, Lands and Heritage, Western Australia.< http://maps.dia.wa.gov.au/AHIS2/> (Accessed 10 July 2017).

DPaW (2017) Nature Map, Department of Parks and Wildlife. https://naturemap.dpaw.wa.gov.au/ (Accessed 30 June 2017)

DPaW (2017b) Fauna Profiles: Malleefowl. Department of Parks and Wildlife, Perth. https://www.dpaw.wa.gov.au/plants-and-animals/threatened-species-and-communities/threatened-animals/malleefowl (Accessed 12 July, 2017).

EnviroWorks Consulting (2012) Desktop Flora and Fauna Study of Tenement E 69/2450. Report prepared for Redstone Resources Limited by EnviroWorks Consulting, October 2012.

Government of Western Australia (2016). 2016 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 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 (now DWER)
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 (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 *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.