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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 7068/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Hanson Construction Materials Pty Ltd**

1.3. Property details

Property: Mining Lease 08/69
Miscellaneous Licence 08/125
Local Government Area: Shire of Ashburton
Colloquial name: Cane River Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
3.5		Mechanical Removal	Sand Mining and associated activites

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 30 June 2016

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 and are useful to look at vegetation in a regional context. The following Beard vegetation association is located within the application area (GIS Database):

605: Hummock grasslands, shrub steppe; *Acacia pachycarpa* & waterwood over soft spinifex.

A flora and vegetation survey of the majority of the application area was conducted by Astron (2013) between 4 and 5 April 2013. The survey identified two vegetation associations within the application area:

MD1 – *Eucalyptus camaldulensis* supsp. *obtusa* low woodland over *Acacia trachycarpa* and *Melaleuca glomerata* tall open shrubland ove *Triodia epactia* open hummock grassland. Associated species include: *Acacia citrinoviridis, Abutilon amplum, *Setaria verticillata, *Cenchrus setiger, Triodia longiceps, Ipomoea muelleri, Glycine canescens,* and *Rhynchosia minima.* This vegetation association is associated with the main drainage area and associated banks; and

P1 – *Eucalyptus camaldulensis* subsp. *obtusa* scattered low trees over *Acacia trachycarpa* tall open scrub over *Triodia epactia* hummock grassland. Associated with floodplain and small drainage depression adjacent to the river and banks.

Clearing Description

Cane River Project.
Hanson Construction Materials Pty Ltd proposes to clear up to 3.5 hectares of native vegetation within a total boundary of approximately 7.2 hectares, for the purpose of sand mining and associated activities. The project is located approximately 51 kilometres south-east of Onslow, in the Shire of Ashburton.

Vegetation Condition

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

To:

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

Comment

Purpose of clearing includes resource excavation, vehicle turning area, screening and stockpiling area and office/crib hut/ablutions.

Clearing of native vegetation will occur using a front end loader.

3. Assessment of application against clearing principles

Comments

The application area occurs within the Roebourne subregion of the Pilbara Interim Biogeographic Regionalisation of Australia bioregion (GIS Database). This subregion is characterised by quaternary alluvial and older colluvial coastal and subcoastal plains with a grass savannah of mixed bunch and hummock grasses, and dwarf shrub steppe of *Acacia stellaticeps* or *A. pyrifolia* and *A. inaequilatera*. Uplands are dominated by *Triodia* hummock grasslands and ephemeral drainage lines support *Eucalyptus victrix* or *Corymbia hamersleyana* woodlands. Samphire, *Sporobolus* and mangal occur on marine alluvial flats and river deltas (CALM, 2002).

Based on the vegetation and flora survey, the vegetation within the application area is in a 'degraded' to 'excellent' condition, with the degradation due to existing roads and prior mining campaigns (Astron, 2013). The vegetation types identified within the application area are well represented within the region and the vegetation within the application area does not form a part of a significant remnant (Astron, 2013). Astron (2013) recorded 70 vascular flora species within 50 genera and 22 families, with no Threatened or Priority flora species, Threatened or Priority Ecological Communities recorded within the application area (Astron, 2013; DPaW, 2016).

There have been no fauna surveys conducted over the application area. Based on the vegetation survey and aerial imagery, the application area is not likely to represent significant fauna habitat (GIS Database). However, the riparian vegetation within the application area may provide important habitat for fauna as the vegetation contains a range of microhabitats including logs, leaf litter and tree hollows, larger trees and important foraging habitat (DoW, 2016). Potential impacts as a result of the proposed clearing may be minimised by the implementation of a condition that restricts clearing of habitat trees. There are no records of fauna of conservation significance occurring within the area applied to clear (DPaW, 2016). Aerial imagery shows vegetation within the application area to be sparse in nature and that the faunal habitat present within the application area is abundant throughout the local area (GIS Database).

The application area is not located within any conservation area (GIS Database). The nearest conservation area is Cane River Conservation Park approximately 2.6 kilometres south of the application area.

The application area sits within the creek bed of the Cane River, which is an ephemeral river subject to inundation (GIS Database) but remains dry for large periods of the year and only flows and holds surface water following significant rainfall events (CALM, 2002). Therefore, it is considered unlikely that the proposed clearing will result in any significant impact to surface water quality. The proposed clearing is not likely to cause a deterioration in the quality of surface or underground water or increase the incidence or intensity of flooding (GIS Database).

The proponent has stated within the associated Mining Proposal that sand extraction will not occur within 5 metres of the banks to minimise bank erosion. Any bank erosion, gullies or other erosion features will be reinstated with compacted sand, erosion control banks, drift dences, fabric and rock and rip-rap as a necessary to prevent erosion (Astron, 2016). Potential impacts from erosion may be minimised by the implementation of a condition that restricts clearing of larger riparian trees and no clearing within the drip line of these trees.

Give the movement of vehicles in the area and the proximity to a watercourse, there is potential for weed species to be transported or spread through the local area. Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area. Potential impacts to the biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

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), 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

Astron (2013)
Astron (2016)
CALM (2002)
DoW (2016)
Keighery (1994)

GIS Database:
- DPaW Tenure
- Hydrography, Lakes
- Hydrography, linear
- IBRA Australia
- Imagery
- Pre-European Vegetation
- Threatened and Priority Ecological Communities (TEC/PEC) - Buffered

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

Comments

There are no Native Title claims over the area under application (Department of Aboriginal Affairs, 2016). 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 (Department of Aboriginal Affairs, 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 23 May 2016 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

Methodology Department of Aboriginal Affairs (2016)

4. References

Astron (2013) Level 1 Flora and Vegetation Survey. Prepared by Astron Environmental Services for Hanson Construction Materials Pty Ltd, April 2013.

Astron (2016) Mining Tenement M08/69 and Miscellaneous Licences L08/125 and L08/154 – Mining Proposal. Prepared by Astron Environmental Services for Hanson Construction Materials Pty Ltd, March 2016.

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Pilbara 4 (PIL1 - Roebourne subregion) Department of Conservation and Land Management, Western Australia.

Department of Aboriginal Affairs (2016) Aboriginal Heritage Enquiry System. Government of Western Australia, http://maps.dia.wa.gov.au/AHIS2/. (Accessed 15 June 2016).

Department of Water (2016) Aquatic habitat, http://www.water.wa.gov.au/water-topics/waterways/values-of-our-waterways/aquatic-habitat. (Accessed 20 June 2016).

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.