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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6730/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Norwest Sand and Gravel Pty Ltd**

1.3. Property details

Property: Mining Lease 47/524
Local Government Area: City of Karratha
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
16.568		Mechanical Removal	Gravel Mining

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 22 October 2015

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

Beard vegetation association 175: Short bunch grassland - savanna/grass plain (Pilbara).

A level 1 flora and vegetation survey of the application area was undertaken by West Ecology during September 2011. The following landforms and vegetation associations were identified within the application area (West Ecology, 2011):

Hills
- Low open shrubland of *Acacia bivenosa* over open hummock grassland on hills.

Footslopes
- Hummock grassland of *Triodia epactia* and *Triodia schinzii* on footslopes.

Plains
- Open scrub of *Acacia sabulosa* over open hummock grassland on plains;
- Low open to open shrubland of *Acacia stellaticeps* over open hummock grassland on plains; and
- High open shrubland of *Acacia tumida* var. *pilbarensis* over hummock and tussock grassland on plains.

Drainage Lines
- Shrubland of *Acacia tumida* var. *pilbarensis* over tussock grassland in drainage lines.

Disturbed areas
- Disturbed areas.

Clearing Description

Norwest Sand and Gravel Pty Ltd proposes to clear up to 16.568 hectares of native vegetation within a total boundary of approximately 16.568 hectares, for the purpose of gravel mining. The project is located approximately 32 kilometres north-east of Karratha, in the City of Karratha.

Vegetation Condition

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

To:

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

Comment

3. Assessment of application against clearing principles

Comments

The proposal to clear 16.568 hectares of native vegetation within an application area of 16.568 hectares for the purpose of gravel mining is unlikely to have any significant environmental impacts. Based on the vegetation and flora survey, the vegetation within the application area is in a 'completely degraded' to 'excellent' condition, with the degradation due to existing roads and tracks within the application area (West Ecology, 2011; Keighery, 1994). 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 (West Ecology, 2011; GIS Database). No Threatened or Priority flora species, Threatened or Priority Ecological Communities have been recorded within the application area (West Ecology, 2011; DPaW, 2015; GIS Database).

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.

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; West Ecology, 2011). 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 and important foraging habitat (West Ecology, 2011). There are no records of fauna of conservation significance occurring within the area applied to clear (DPaW, 2015). The small scale clearing proposed is unlikely to significantly impact the conservation significance of these faunal habitats or impact on any conservation significant fauna.

The application area is not located within any conservation area (GIS Database). There are no conservation areas within 35 kilometres of the application area (GIS Database).

According to available databases, there are no permanent wetlands or watercourses within the application area, however there are several minor ephemeral watercourses within the application area (GIS Database). Based on flora and vegetation mapping by West Ecology (2011), one vegetation association was identified to be associated with drainage areas. Provided disturbance to riparian habitats is avoided or minimised where possible, and strict weed hygiene procedures are followed, the proposed works are not expected to substantially impact this vegetation association. Potential impacts to riparian vegetation may be minimised through the implementation of a vegetation management condition.

The application area intersects the Ruth and Cheerawarra land systems. The Cheerawarra land system is highly susceptible to erosion if the vegetative cover is removed (GIS Database). There is a risk of wind and/or water erosion occurring should these areas remain exposed. Potential erosion impacts as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition (GIS Database). 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 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), may be at variance to Principle (g), is not likely to be at variance to Principles (a), (b), (c), (d), (h), (i), and (j), and is not at variance to Principle (e).

Methodology

DPaW (2015)
Keighery (1994)
West Ecology (2011)
GIS Database

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

Comments

There are no Native Title claims over the area under application (Department of Aboriginal Affairs, 2015; GIS Database). 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 (GIS Database). 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 14 September 2015 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

Methodology Department of Aboriginal Affairs (2015)

4. References

Department of Aboriginal Affairs (2015) Aboriginal Heritage Enquiry System. Government of Western Australia, viewed 6 October 2015 <http://maps.dia.wa.gov.au/AHIS2/>.

Department of Parks and Wildlife (DPaW) (2015) NatureMap Department of Parks and Wildlife, viewed 6 October 2015 <http://naturemap.dec.wa.gov.au>.

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

West Ecology (2011) Flora and Vegetation Survey of Welcome Exploration Tenements M47/411, M47/524, M47/556, M47/442 and M45/1195. Prepared for Welcome Exploration Pty Ltd, September 2011.

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
s.17	Section 17 of *the Environment Protection Act 1986*, Western Australia
TEC	Threatened Ecological Community

Definitions:

{DPaW (2013) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

T **Threatened species:**
Specially protected under the *Wildlife Conservation Act 1950,* listed under Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna or the Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).

Threatened Fauna and Flora are further recognised by DPaW according to their level of threat using IUCN Red List criteria. For example Carnaby's Cockatoo *Calyptorynchus latirostris* is specially protected under the *Wildlife Conservation Act 1950* as a threatened species with a ranking of Endangered.

Rankings:
CR: Critically Endangered - considered to be facing an extremely high risk of extinction in the wild.
EN: Endangered - considered to be facing a very high risk of extinction in the wild.
VU: Vulnerable - considered to be facing a high risk of extinction in the wild.

X **Presumed Extinct species:**
Specially protected under the *Wildlife Conservation Act 1950,* listed under Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora (which may also be referred to as Declared Rare Flora).

IA **Migratory birds protected under an international agreement:**
Specially protected under the *Wildlife Conservation Act 1950,* listed under Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice.
Birds that are subject to an agreement between governments of Australia and Japan, China and The Republic of Korea relating to the protection of migratory birds and birds in danger of extinction.

S **Other specially protected fauna:**
Specially protected under the *Wildlife Conservation Act 1950,* listed under Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice.

P1 **Priority One - Poorly-known species:**
Species that are known from one or a few collections or sight records (generally less than five), all on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, Shire, rail reserves and Main Roads WA road, gravel and soil reserves, and active mineral leases and under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes.

P2 **Priority Two - Poorly-known species:**
Species that are known from one or a few collections or sight records, some of which are on lands not under imminent threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, unallocated Crown land, water reserves, etc. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes.

P3 **Priority Three - Poorly-known species:**
Species that are known from collections or sight records from several localities not under imminent threat, or from few but widespread localities 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 localities but do not meet adequacy of survey requirements and known threatening processes exist that could affect them.

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 do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable.
(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

P5 **Priority Five - Conservation Dependent species:**
Species that are not threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

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.