Government of Western Australia
Department of Mines and Petroleum

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 7144/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Hanson Construction Materials Pty Ltd

1.3. Property details

Property: Mining Lease 70/1283
Mining Lease 70/1284
Miscellaneous Licence 70/149
Local Government Area: City of Waneroo
Colloquial name: Jandabup Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 11 August 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. One Beard vegetation association has been mapped over the application area (GIS Database):

Beard vegetation association 949: Low woodland; banksia (GIS Database).

Two Heddle vegetation complexes have also been mapped over the application area:

Bassendean Complex - North: Consists of a Low Open Forest of Banksia spp., *Eucalyptus todtiana* to Low Woodland of *Melaleuca* spp. and Sedgelands which occupy the moister sites.

Bassendean Complex – North Transition Vegetation: A transition complex of Low Open Forest and Low Woodland of Banksia spp., *Eucalyptus todtiana* on a series of high sand dunes.

EnviroWorks Consulting (2012) conducted a Level 1 flora survey of the proposed clearing area during May in 2012. The vegetation community identified onsite was described as self-sown scattered individual plants of *Nuytsua floribunda*, *Xanthorrhoea preissii, Jacksonia* spp. and low woody shrubs which occur sporadically. There is some recruitment of native species from seeds likely dispersed from adjacent Banksia woodlands. Weeds (especially grasses) are common (EnviroWorks, 2012).

Clearing Description

Jandabup Project
Hanson Construction Materials Pty Ltd proposes to clear up to 29.61 hectares of native vegetation within a total boundary of approximately 29.61 hectares, for the purpose of sand mining. The project is located approximately 25 kilometres north of Perth, in the City of Wanneroo.

Vegetation Condition

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

To:

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

Comment

A clearing permit was previously granted over the application area. CPS 5173/1 was granted in 2012 and approved the clearing of 40.95 hectares of native vegetation. The current clearing permit application replaces CPS 5173/1, excludes already cleared areas and includes an additional 0.11 hectares of previously assessed vegetation that was not approved due to tenure issues. A new clearing permit is required as the permit holder name is proposed to be changed. Purpose permits cannot be amended to change the permit holder's name.

Given that the application area is the same as for CPS 5173/1, advice obtained from the Department of Water (DoW) in 2012 during the assessment for CPS 5173/1, has been used within the assessment for CPS 7144/1. Advice obtained from the Department of Parks and Wildlife (DPaW) for a nearby application (located approximately 3 kilometres south) has also been used within the assessment.

The condition of the vegetation under application was determined via a Level 1 vegetation and flora survey conducted by EnviroWorks consulting in 2012.

3. Assessment of application against Clearing Principles

Comments

The vegetation that occurs within, and within close vicinity of, the application area is predominately regrowth from a Pine (*Pinus pinaster*) plantation that has been progressively cleared from 2007. The original native vegetation was cleared over 80 years ago to establish the Gnangara Pine Plantation.

Four species of Threatened flora have been recorded within the local area (10 kilometre radius): *Marianthus paralius*, *Grevillea curviloba* subsp. *curviloba, Dasymalla axillaris,* and *Caladenia huegelii.* Preferred habitat is not present within the application area for all but two of these species. *Caladenia huegelii* is found within a variety of sandy habitats and has been recorded close to flats and swamps, whilst *Dasymalla axillaris* is common to yellow sand (Western Australian Herbarium, 1998). In addition to the four Threatened flora species, seven Priority 1 species and five Priority 2 flora species have been recorded within the local area (DPaW, 2016). No Threatened or Priority flora species were recorded within the application area during the Level 1 flora survey. Given that the application area has been subject to existing disturbance, and no Threatened or Priority flora have been recorded within the application area, the vegetation to be cleared is not likely to be necessary for the continued existence of Threatened or Priority flora species.

According to available datasets, no Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) are known to occur within the application area. The nearest PEC is situated approximately 4 kilometres north west and the closest TEC is located 10 kilometres south east. No TECs or PECs were identified within the application area during the flora survey (EnviroWorks 2012).

EnviroWorks Consulting conducted a Level 1 flora and vegetation survey of the application area in 2012. No vegetation units were considered to be of high conservation significance and habitat diversity was very low, despite being within the Gnangara-Moore River State Forest (EnviroWorks, 2012; GIS Database). The condition of the vegetation under application ranges from ‘degraded to ‘completely degraded’ (Keighery, 1994; GIS Database).

During the 2012 flora survey, a number of weed species were noted and dieback is known to occur in the local area. Despite the values of the application area already being compromised, it is important to ensure that weeds and dieback are not spread to uninfected areas. Potential impacts from the spreading of weeds and dieback as a result of the proposed clearing may be minimised by the implementation of a weed and dieback management condition.

Thirty nine fauna species of conservation significance have been recorded within the local area, the majority of which are either highly mobile or migratory species (DPaW, 2016). Faunal habitat for the remaining species is limited due to the lack of vegetative cover, landform features and the existing level of disturbance (EnviroWorks, 2012; GIS Database). The Department of Parks and Wildlife provided advice for a nearby clearing permit application, which contains very similar habitat types to that of the application area, and did not identify any specific fauna issues (DPaW, 2014). Impacts to local fauna species, including species of conservation significance, are likely to be negligible.

Beard vegetation association 949 is well represented within the local area and region, retaining approximately 56% of pre-European vegetation within the state and bioregion (Government of Western Australia, 2014). This is above the 30% threshold level recommended in the National Objectives Targets for Biodiversity Conservation below which, species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). While aerial imagery shows the local area to be extensively cleared, given the poor condition and limited habitat value of the vegetation under application, the application is unlikely to provide important linkage within the local area.

There are no watercourses or wetlands mapped within the application area. The closest wetland is situated approximately 200 metres west and there is sufficient vegetation that is acting as a buffer. This being considered, impacts to the quality of surface water are unlikely. While the application area is located within a Priority One Public Drinking Water Source Area (the Gnangara Underground Wwater Pollution Control Area), the Department of Water (DoW) did not raise any major concerns with the proposed clearing (DoW, 2012). The proposed clearing is not likely to result in measurable adverse impacts to the quality of groundwater.

Given that the soils of the application are chiefly composed of sand soils, land degradation, in the form of wind erosion, is likely to occur if areas are left open for extended periods. However, the proponent has implemented measures to reduce erosion, such as the strategic stockpiling of cleared vegetation for later use in rehabilitation activities. The surrounding vegetation also serves as a wind break. Potential land degradation impacts as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition.

The application area was previously assessed under clearing permit CPS 5173/1. The assessment found the proposed clearing to be at variance to Principle (g), not at variance to Principle (f) and was not likely to be at variance to the remaining clearing principles. Given that the areas proposed to be cleared have only been increased by 0.11 hectares, and that the application area has been reduced to exclude already cleared areas,

no additional environmental impacts are anticipated. As a result of ongoing disturbance in the area, it is likely that the environmental values have further diminished.

The assessment against the clearing principles remains consistent with the assessment contained in decision report CPS 5173/1 for Principles (a), (b), (c), (d), (e), (f), (h), (i) and (j). Given that the proponent has detailed measures to reduce the risk of wind erosion, the proposed clearing under CPS 7144/1 is considered not likely to be at variance to Principle (g).

Methodology

Commonwealth of Australia (2001)
DoW (2012)
DPaW (2014)
DPaW (2016)
EnviroWorks (2012)
Government of Western Australia (2014)
Keighery (1994)

GIS Database:
- DPaW Tenure
- Groundwater Salinity
- Hydrographic Catchments – Catchments
- Hydrography, linear
- IBRA Australia
- Imagery
- Pre-European Vegetation
- Public Drinking Water Source Areas (PDWSAs)
- Soils, Statewide
- Threatened and Priority Flora List
- Threatened and Priority Ecological Communities Buffers
- Threatened and Priority Ecological Communities Boundaries

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

Comments

There are three native title claims over the application area (WC2011/009, WC2011/002 and WC2003/006) (DAA, 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*.

According to available datasets, there are no Sites of Aboriginal Significance located in the area applied to clear (DAA, 2016). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Sites of Aboriginal Significance are damaged through the clearing process

It is the proponent's responsibility to liaise with the Department of Environment Regulation, the 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 18 July 2016 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

Methodology DAA (2016)

4. References

Commonwealth of Australia (2001) National objectives and targets for biodiversity conservation 2001-2005. Commonwealth of Australia, Canberra, ACT.

DAA (2016) Aboriginal Heritage Inquiry System, Department of Aboriginal Affairs, Perth, Western Australia < http://maps.dia.wa.gov.au> Accessed August 2016.

DoW (2012) Advice in relation to Clearing Permit Application CPS 5173/1. Department of Water, Western Australia, December 2012.

DPaW (2016) NatureMap, Department of Parks and Wildlife <http://naturemap.dec.wa.gov.au> (Accessed August 2016).

DPaW (2014) Advice received in relation to Clearing Permit Application CPS 6363/1. Species and Communities Branch, Department of Parks and Wildlife, Western Australia, November 2014.

Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2014. WA Department of Environment and Conservation, 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.

EnviroWorks (2012) Level 1 flora survey and habitat assessment of the proposed Jandabup sand quarry. Prepared for Rocla Quarry Products by EnviroWorks Consulting, June 2009.

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.