



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6542/1
Permit type: Purpose

1.2. Proponent details

Proponent's name: Hocim (Australia) Pty Ltd

1.3. Property details

Property: Mining Lease 70/1046
Mining Lease 70/1241
Local Government Area: City of Rockingham
Colloquial name: Baldivis Sand Quarry

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 21 May 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. Two Beard vegetation associations have been mapped within the application area (GIS Database):

998: Medium woodland; tuart; and
1001: Medium very sparse woodland; jarrah, with low woodland; banksia and casuarina.

The application area was previously covered by pine plantation but was cleared in 2007 by the Forest Products Commission due to the presence of the European House Borer (URS, 2014). Bennett Environmental Consulting (2014) undertook a level 1 flora survey of the application area and identified the following vegetation units:

Areas that were revegetated with a known species list;

- Low Woodland A of *Eucalyptus gomphocephala* and *Eucalyptus marginata* subsp. *marginata* over Dwarf Scrub D dominated by *Gastrolobium capitatum* over Open Herbs of *Conostylis aculeata* over Tall Grass dominated by **Ehrharta calycina*.

- Open Low Scrub C of *Acacia saligna* and **Acacia iteaphylla* over Open Dwarf Scrub D dominated by *Acacia pulchella* var. *pulchella*, *Pelargonium capitatum*, *Gastrolobium capitatum* and *Jacksonia furcellata* over Dense Tall Grass dominated by **Ehrharta calycina* over Very Open Herbs dominated by **Carpobrotus edulis*.

Areas seeded with sterile oats;

- Open Dwarf Scrub D of mixed shrubs dominated by *Jacksonia furcellata* over Tall Grass dominated by **Ehrharta calycina* and **Avena* sp.

- Open Dwarf Scrub C of *Jacksonia furcellata* over Tall Grass dominated by **Avena* sp.

- Dwarf Scrub C dominated by *Jacksonia furcellata* over Tall Grass of **Ehrharta calycina* over Open Herbs of **Carpobrotus edulis*.

Areas that revegetated naturally;

- Open Woodland of *Eucalyptus gomphocephala* and *Eucalyptus marginata* subsp. *marginata* over Open Scrub of *Acacia saligna* and *Acacia rostellifera* over Low Scrub B of *Exocarpos sparteus* over Low Heath C dominated by *Gompholobium tomentosum*, *Gastrolobium capitatum* and *Jacksonia furcellata* over Open Tall Grass.

- Low Scrub B of *Acacia saligna* and *Acacia rostellifera* over *Jacksonia furcellata* and *Acacia pulchella* var. *pulchella* over Low Heath C dominated by *Gastrolobium capitatum* over Open Tall Grass over Very Open Tall Sedges of *Mesomelaena pseudostygia*.

- Dense Tall Grass dominated by **Ehrharta calycina* with **Pinus pinaster* logs left on the surface.

*denotes introduced species.

Clearing Description	Baldivis Sand Quarry. Holcim (Australia) Pty Ltd proposed to clear up to 79.5 hectares within a boundary of approximately 94 hectares for the purposes of mineral production. The project is located approximately 18 kilometres north-east of Mandurah in the City of Rockingham.
Vegetation Condition	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994); to Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).
Comment	The vegetation condition was derived from a report prepared by Bennett Environmental Consulting (2014).

3. Assessment of application against clearing principles

Comments

The proposed clearing of 79.5 hectares is for the expansion of the Baldivis Sand Quarry. The application area was previously covered by pine plantation which was cleared in 2007 due to the presence of European House Borer (URS, 2014). The revegetation within the application area has been split into three categories; areas sown with sterile oats, areas revegetated with a known species list and areas that naturally revegetated from the seedbank (Bennett Environmental Consulting, 2014).

The areas revegetated with sterile oats do not contain a high number of native species and are largely in 'degraded' and 'completely degraded' condition (Bennett Environmental Consulting, 2014). The areas revegetated with native species used mostly inappropriate species such as Eastern Australian species and species more suited to southern areas of the state (Bennett Environmental Consulting, 2014). These species were not successful and the only surviving species from the original list was *Eucalyptus gomphocephala*. These areas varied in condition from 'very good' to degraded' (Bennett Environmental Consulting, 2014). The areas of natural revegetation were generally in better condition ('very good' to 'good') apart from one area that was in 'completely degraded' condition (Bennett Environmental Consulting, 2014). Shrub cover in these areas was denser than the deliberately revegetated areas. Weeds are rife across the application area with 38 species recorded (URS, 2014). There has also been some areas of dieback noted within the application area (URS, 2014). Potential impacts from weeds and dieback may be minimised by the implementation of a weed and dieback management condition.

No Threatened or Priority Ecological Communities have been recorded within the application area (Bennett Environmental Consulting, 2014; GIS Database). No Threatened or Priority flora was recorded during the flora survey of the application area and there are no previous records in the area (Bennett Environmental Consulting, 2014; GIS Database). The range of flora species recorded during the flora survey does not contain a high level of diversity (URS, 2014).

Given the quality of the vegetation within the application area, it is not likely to contain significant habitat for native fauna species. The application area is part of a loose network of remnants in the local area, however, the proposed clearing is not likely to significantly impact on any ecological linkages (Bamford Consulting Ecologists, 2013; GIS Database). The application area may be utilised by Quenda (*Isoodon obesulus fusciventer* - Priority 5), however, it is not likely to be actively utilising the area on a regular basis (URS, 2014).

There are no watercourses within the application area (GIS Database). Surface runoff rarely occurs in the area as the infiltration capacity of the sandy soil is rarely exceeded by the rainfall intensity (URS, 2014). None of the vegetation within the application area is riparian vegetation associated with a watercourse or wetland (Bennett Environmental Consulting, 2014).

Part of the application area is within Reserve 37090 which is vested in the Department of Parks and Wildlife and the Department of Mines and Petroleum for the purposes of forestry and explosives (GIS Database). The site previously comprised a pine plantation that was cleared in 2007 (URS, 2014).

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 not likely to be at variance to Principles (a), (b), (c), (d), (g), (h), (i), and (j), and is not at variance to Principles (e) and (f).

Methodology	Bamford Consulting Ecologists (2013) Bennett Environmental Consulting (2014) URS (2014) GIS Database: - DPaW Tenure - Hydrography, linear - Imagery - Threatened and Priority Ecological Communities Boundaries - Threatened and Priority Ecological Communities Buffers
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Planning instrument, Native Title, Previous EPA decision or other matter.

Comments

There is one Native Title claim over the application area (WC2003/006). This claim has been registered with the Native Title Tribunal on behalf of the claimant group. 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 is one registered Site of Aboriginal Significance located in the area applied to clear (GIS Database). 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 27 April 2015 by the Department of Mines and Petroleum inviting submissions from the public. There were no submissions received.

Methodology GIS Database:
- Aboriginal Sites Register System

4. References

- Bamford Consulting Ecologists (2013) Baldvis Sand Quarry Assessment of Value of a Rehabilitation Area for Significant Fauna. Unpublished report for Holcim (Australia) Pty Ltd, dated 12 September 2013.
- Bennett Environmental Consulting (2014) Assessment of Rehabilitation at Baldvis Sand Mining at Karnup. Unpublished report for Holcim (Australia) Pty Ltd, dated December 2014.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- URS (2014) Baldvis Sand Quarry Stage 1C Expansion Project M70/1241: Clearing Permit Supporting Information. Unpublished report for Holcim (Australia) Pty Ltd, dated 16 December 2014.

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	<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
s.17	Section 17 of the <i>Environment Protection Act 1986</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

{Atkins, K (2005). *Declared rare and priority flora list for Western Australia, 22 February 2005*. Department of Conservation and Land Management, Como, Western Australia} :-

P1 **Priority One - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g.

road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

- P2 Priority Two - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P3 Priority Three - Poorly Known taxa:** taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.
- P4 Priority Four – Rare taxa:** taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.
- R Declared Rare Flora – Extant taxa (= Threatened Flora = Endangered + Vulnerable):** taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.
- X Declared Rare Flora - Presumed Extinct taxa:** taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

{Wildlife Conservation (Specially Protected Fauna) Notice 2005} [Wildlife Conservation Act 1950] :-

- Schedule 1 Schedule 1 – Fauna that is rare or likely to become extinct:** being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.
- Schedule 2 Schedule 2 – Fauna that is presumed to be extinct:** being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.
- Schedule 3 Schedule 3 – Birds protected under an international agreement:** being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.
- Schedule 4 Schedule 4 – Other specially protected fauna:** being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

{CALM (2005). *Priority Codes for Fauna*. Department of Conservation and Land Management, Como, Western Australia} :-

- P1 Priority One: Taxa with few, poorly known populations on threatened lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P2 Priority Two: Taxa with few, poorly known populations on conservation lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P3 Priority Three: Taxa with several, poorly known populations, some on conservation lands:** Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P4 Priority Four: Taxa in need of monitoring:** Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.
- P5 Priority Five: Taxa in need of monitoring:** Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

Categories of threatened species (*Environment Protection and Biodiversity Conservation Act 1999*)

- EX Extinct:** A native species for which there is no reasonable doubt that the last member of the species has died.
- EX(W) Extinct in the wild:** A native species which:
(a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or
(b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
- CR Critically Endangered:** A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.

- EN** **Endangered:** A native species which:
(a) is not critically endangered; and
(b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
- VU** **Vulnerable:** A native species which:
(a) is not critically endangered or endangered; and
(b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
- CD** **Conservation Dependent:** A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 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.