

1. Application details

1.1. Permit application de	etails			
Permit application No.:	5511/2			
Permit type:	Area Permit			
1.2. Proponent details				
Proponent's name:	TT Sand Pty Ltd			
1.3. Property details				
Property:	Mining Lease 70/793			
Local Government Area:	City of Albany			
Colloquial name:	Mindijup Silica	indijup Silica Sand Project		
1.4. Application				
Clearing Area (ha) No. T	rees Meth	hod of Clearing	For the purpose of:	
70	Mec	chanical Removal	Sand Extraction	
1.5. Decision on application				
Decision on Permit Application: Grant				
Decision Date:	04 February 2016			

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

VegetationBeard vegetation associations have been mapped for the whole of Western Australia. One Beard vegetation association isDescriptionlocated within the amendment area (GIS Database):

Beard vegetation association 979: Mosaic: Medium forest; jarrah-marri / Low forest; jarrah & casuarina (probably Allocasuarina fraseriana).

However, Sandiford (2011) identified that the vegetation within the amendment area does not correlate well with Beard mapping units. Sandiford (2011) indicates that the digitized Beard unit 979 is not a separate original Beard unit but an artefact of digitizing and a mosaic of digitized units 3 and 994. GHD (2012) considers the vegetation within the amendment area to be representative of Beard vegetation association unit 3:

Beard vegetation association 3: Medium forest; jarrah-marri.

The area under application falls within the Albany Regional Vegetation Survey (ARVS) (Sandiford and Barrett, 2010) Unit 14: *Banksia coccinea* Shrubland/ *Eucalyptus staeri*/ Sheoak Open Woodland although no *Banksia coccinea* are present or known to occur within at least 8 kilometres of the survey area (Sandiford, 2011).

A flora and vegetation survey of the application area conducted by GHD Pty Ltd (2012) identified one vegetation type:

- Open Woodland to Low Open Woodland of *Eucalyptus staeri* with occasional *Eucalyptus marginata* over *Banksia* attenuata and Allocasuarina fraseriana. The upper shrub layer varies from Tall Open Shrubland to Closed Heath and is typically dominated by *Jacksonia spinosa*, *Agonis theiformis* and *Melaleuca thymoides*. The lower shrub layer varies from a Low Shrubland to Low Closed Heath with a dominance of *Leucopogon distans*, *Lysinema ciliatum*, *Andersonia caerulea*, *Xanthosia rotundifolia*. The sedgeland is dominated by *Anarthria scabra*, *Anarthria prolifera*, *Hypolaena exsulca* and *Lyginia barbata*. Common herb species include *Dasypogon bromeliifolius* and *Johnsonia lupulin* (GHD Pty Ltd, 2012b).
- Clearing Mindijup Silica Sand Project
- Description AustSand Mining (on behalf of TT Sand Pty Ltd) proposes to clear up to 70 hectares of native vegetation within a total boundary of approximately 70 hectares, for the purpose of sand extraction. The project is located approximately 30 kilometres north east of Albany in the City of Albany.
- Vegetation Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994). Condition
- **Comment** Clearing Permit CPS 5511/1 was granted by the Department of Mines and Petroleum on 23 May 2013 and authorised the clearing of up to 69.9 hectares of native vegetation within a clearing permit boundary of approximately 69.9 hectares. The clearing was authorised for the purpose of extracting silica sands.

The permit holder has applied to amend CPS 5511/1 to slightly modify the clearing permit boundary in order to allow for an altered access point to a mining cell. The proposed amendment will result in an increase in the amount of clearing by 0.1 hectares and the clearing permit boundary will increase by the same amount. The amount of clearing will therefore increase from

69.9 hectares to 70 hectares, which will align with approval granted under the Environmental Protection and Biodiversity Conservation Act 1999.

The condition of the vegetation under application was determined via a flora and vegetation survey conducted by GHD Pty Ltd (2012).

8. Assessment of application against Clearing Principles

Comments

AustSand Mining (on behalf of TT Sand Pty Ltd) has applied to increase the amount of clearing by 0.1 hectares and increase the clearing permit boundary by the same amount. The total amount of clearing will increase from 69.9 hectares to 70 hectares. The proposed amendment will allow for the relocation of a small section of the approved clearing permit boundary north of its current location. This modification is required in order to enable an access point to the sand resource (which is mined in cells) and will improve the functionality of the mine. No clearing has occurred within the area previously approved for CPS 5511/1.

The environmental values of the clearing permit boundary and surrounding area (which included the 0.1 hectares proposed to be cleared under this amendment) were assessed during the assessment of clearing permit CPS 5511/1 and considerable issues were identified.

The assessment found the proposed clearing to be at variance to Principles (a) and (b), may be at variance to Principles (e), (g) and (h) and is not likely to be at variance to the remaining Principles. The vegetation under application is considered to be in 'Excellent' condition (Keighery, 1994) and acts as an important linkage corridor within the local area (for fauna, flora and between nearby conservation areas), provides significant feeding habitat for the Carnaby's Cockatoo (*Calyptorhynchus latirostris*) and may form part of a regionally significant area of remnant native vegetation (DEC, 2011; GHD, 2011a; GHD 2011b; GHD, 2012; Wilkins et al., 2006). The application area was also considered prone to wind erosion following clearing activities and occurs within a dieback risk zone.

An offset proposal was developed for CPS 5511/1, endorsed by the Department of Parks and Wildlife (DPaW) and is currently being implemented by the proponent. The offset provides funds to DPaW to purchase 420 hectares of native vegetation to be managed for conservation purposes. The offset land is strategically located adjacent to the Stirling Range National Park (DEC, 2013).

The proposed amendment (a minor modification to the clearing permit boundary and a 0.1 hectare increase in the amount of clearing) is unlikely to result in any additional environmental impacts. The existing offset ratio (6:1) remains the same.

To minimise the potential for wind erosion, a staged clearing condition was placed on the granted permit for CPS 5511/1. This condition limits the amount of clearing to six hectares within a 12 month period, which also allows for progressive rehabilitation to occur. To reduce the risk of weed and dieback invasion, a weed and dieback control condition was also imposed on the permit.

Potential impacts as a result of the proposed amendment may be minimised by the implementation of the existing offset and existing permit conditions.

The assessment against the clearing principles remains consistent with the assessment contained in decision report CPS 5511/1.

Methodology

DEC (2011) DEC (2013) GHD (2011a) GHD (2011b) GHD (2012) Wilkins *et al.* (2006)

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

Comments

There are two native title claims over the application area (WC2003/006 and WC1998/070) (DAA, 2015). 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 Sites of Aboriginal Significance located in the area applied to clear (DAA, 2015). 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 extension of existing operations at the Mindijup Silica Sand Project site was approved by the Department of the Environment (DotE) on 27 May 2013 under sections 130(1) and 133 of the *Environment Protection and Biodiversity Conservation Act 1999*. This approval (EPBC 2012/6472) authorised the clearing of up to 70 hectares of native vegetation and also imposed a number of conditions. It is the proponent's responsibility to ensure compliance with Commonwealth legislation.

The amendment application was advertised on 28 December 2015 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to this application.

Methodology DAA (2015)

4. References

DAA (2015) Aboriginal Heritage Inquiry System, Department of Aboriginal Affairs, Perth, Western Australia < http://maps.dia.wa.gov.au>.

DEC (2011) Carnaby's Cockatoo advice for CPS 4537/1. Department of Environment and Conservation (now Department of Parks and Wildlife), Species and Communities Branch, Kensington, Western Australia.

DEC (2013) Advice for CPS 5111/1 Offset Proposal. Department of Environment and Conservation (now Department of Parks and Wildlife), Species and Communities Branch, Kensington, Western Australia.

- GHD (2011a) Clearing Permit Application Mindijup Silica Sand Project on M70/793 Supporting Documentation. Unpublished Report for TT Sands Pty Ltd. GHD Pty Ltd, Perth, Western Australia.
- GHD (2011b) Mine Expansion Project Potential Black Cockatoo nesting and feeding areas. Unpublished Report for TT Sands Pty Ltd. GHD Pty Ltd, Perth, Western Australia.
- GHD (2012) Austsand Mining: Report for Mindijup Minesite Environmental Assessment and Mitigation Plan, June 2012. GHD Pty Ltd, Perth, Western Australia.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Wilkins, P., Gilfillan, S., Watson, J. and Sanders, A. (ed) (2006) The Western Australian South Coast Macro Corridor Network a bioregional strategy for nature conservation, Department of Conservation and Land Management (CALM) and South Coast Regional Initiative Planning Team (SCRIPT), Albany Western Australia.

5. Glossary

Acronyms:

ВоМ	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 ActRights in Water and Irrigation Act 1914, Western AustraliaTECThreatened 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.