



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5651/2
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Westdeen Holdings Pty Ltd

1.3. Property details

Property: Mining Lease 70/309
Local Government Area: Shire of Irwin
Colloquial name: Dongara Limesand Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
24.2		Mechanical Removal	Sand Extraction and Associated Activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 16 February 2017

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. The application area has been broadly mapped as the following two Beard vegetation associations (Government of Western Australia, 2015; GIS Database):

17: Shrublands: *Acacia rostellifera* thicket; and
772: Shrublands: *Acacia lasiocarpa* and *Melaleuca acerosa* heath.

The majority of the application area is mapped as Beard vegetation association 772, while a very small section at the north-western corner is mapped as Beard vegetation association 17 (GIS Database).

A limited on-site flora and vegetation survey was conducted over the original application area (the current permit area of CPS 5651/1) on 18 July 2013 by Biggs and Associates Consulting Services (Biggs, 2013). The on-site survey followed up on the results of a desktop flora survey and consisted predominantly of a targeted search for three conservation significant flora species considered likely to occur at the site. The three targeted conservation significant flora species were not recorded during the on-site survey (Biggs, 2013). The original application area (CPS 5651/1) was described as highly mobile sand dunes, with little or no vegetation on the dunes and more established vegetation cover in the swales which were protected from prevailing winds and had greater soil stability (Biggs, 2013). A site visit of the CPS 5651/1 application area by the DMP Assessing Officer in 2013, confirmed that the vegetation was very sparse on the sand dune, while the base of the dune and surrounding area contained low shrubland.

The amendment application area adjoins and is located predominantly on the eastern side of the original permit area (CPS 5651/1). Analysis of aerial imagery indicates that the amendment application area consists of some sparsely vegetated areas and some more densely vegetated areas, particularly in the southern half of the amendment application area (GIS Database). Westdeen (2016) report that the dunes on the eastern side of Mining Lease 70/309 are more stable and are vegetated in part by mature stands of *Melaleuca* and *Acacia*. This description would appear to be consistent with the mapped Beard vegetation associations. A flora and vegetation survey has not been conducted over the amendment application area.

Clearing Description Dongara Limesand Project
Westdeen Holdings Pty Ltd proposes to clear up to 24.2 hectares of native vegetation within a total boundary of approximately 37.5 hectares for the purpose of extracting lime sand. The project is located approximately one kilometre east of Port Denison in the Shire of Irwin.

Vegetation Condition Good: Structure significantly altered by multiple disturbances; retains basic structure/ability to regenerate (Keighery, 1994);

to:

Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).

Comment

The vegetation condition rating was determined using information provided by the proponent and an analysis of aerial imagery (Westdeen, 2016; GIS Database).

A previous clearing permit (CPS 1993/1) was granted to Westdeen Holding Pty Ltd at the same site on 10 January 2008. CPS 1993/1 authorised the clearing of up to 5.9 hectares of native vegetation within a permit boundary of approximately 6.5 hectares, and was valid from 9 February 2008 to 9 February 2013. Following the expiry of CPS 1993/1, the proponent subsequently applied for a new clearing permit (CPS 5651/1), which included the majority of the CPS 1993/1 permit area and also extended into adjacent areas.

Clearing Permit CPS 5651/1 was granted by the Department of Mines and Petroleum (DMP) on 12 September 2013. The permit authorised the clearing of up to 9.2 hectares of native vegetation within a clearing permit boundary of approximately 11.5 hectares, for the purpose of sand extraction and associated activities. Clearing was authorised from 5 October 2013 to 1 October 2018, with the amount of clearing restricted to one hectare per financial year.

The Permit Holder has applied to amend CPS 5651/1 to increase the amount of clearing authorised from 9.2 hectares to 24.2 hectares, increase the permit boundary from approximately 11.5 hectares to approximately 37.5 hectares, and remove the yearly restriction on the amount of clearing authorised. The proposed amendment is to allow the ongoing extraction of lime sand from the site. Following extraction of sand, the excavated areas are progressively rehabilitated (Westdeen, 2016).

3. Assessment of application against Clearing Principles

Comments

Westdeen Holdings Pty Ltd (Westdeen) has applied to amend the clearing permit to increase the amount of clearing authorised by 15 hectares to 24.2 hectares; increase the permit boundary by approximately 26 hectares to approximately 37.5 hectares; and remove the permit condition which restricts the amount of clearing which may be undertaken to one hectare per year. The amendment application area is approximately 26 hectares in size, it is located predominantly to the east of the original clearing permit area and also includes a small area wrapping around the northern and eastern sides of the original permit area (GIS Database).

The application area falls within the Lesueur Sandplain sub-region of the Geraldton Sandplains Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). The dominant landuse of the Geraldton Sandplains bioregion is agriculture (CALM, 2002) and a substantial part of the bioregion has been cleared for agricultural and community purposes (GIS Database). Less than 45 percent, of the pre-European vegetation remains within the Lesueur Sandplain sub-region and the Geraldton Sandplains bioregion (Government of Western Australia, 2015), which is classed as "Depleted" according to the Bioregional Conservation Status of Ecological Vegetation Classes (Department of Natural Resources and Environment, 2002). However, the sand-dune areas within the region are less suitable for agriculture and hence these areas have retained a higher level of vegetation.

The amendment area is mapped as Beard vegetation associations 17 and 772, which is consistent with the original clearing permit area (GIS Database). The majority of the application area is mapped as Beard vegetation association 772 (GIS Database), of which approximately 95 percent of the pre-European extent remains uncleared within the state, the bioregion, the sub-region and the Irwin shire (Government of Western Australia, 2015). Vegetation association 772 is very well represented in conservation estate with approximately 78 percent of the pre-European extent occurring within DPaW managed lands (Government of Western Australia, 2015). Vegetation association 17 is mapped over only a small part of the north-eastern corner of the application area (GIS Database). The remaining extent of Beard vegetation association 17, ranges from approximately 88 percent at the state level, to approximately 69 percent at the shire level, with approximately 11 percent of the pre-European extent of vegetation association 17 occurring within DPaW managed lands (Government of Western Australia, 2015). Large areas of similar vegetation persist in close proximity to the application area (GIS Database), and the vegetation proposed to be cleared is not considered to represent a significant remnant of native vegetation in the region.

The highly mobile sand dunes with little or no vegetation cover have previously been the main target areas for limesand mining on this tenement and are now largely depleted and undergoing progressive rehabilitation (Westdeen, 2016). The amendment application extends the clearing permit boundary towards the eastern side of the tenement, where the dunes are more stable and much more heavily vegetated (Westdeen, 2016; GIS Database). Flora and vegetation surveys have not been specifically undertaken over the amendment application area. A basic flora and vegetation survey was undertaken over Mining Lease 70/309 during July 2013, in support of the original clearing permit application (Biggs, 2013). This survey concentrated predominantly on the original clearing permit application area (CPS 5651/1), which was already highly disturbed and much more sparsely vegetated than the amendment application area. Minimal information was provided by Biggs (2013) in relation to the flora and vegetation outside of the original clearing permit application area.

According to Westdeen (2016) the whole tenement has undergone previous disturbance from grazing and human activities, and has suffered significant weed invasion. Westdeen (2016) further report that the dunes on the eastern side of Mining Lease 70/309 are vegetated in part by mature stands of Melaleuca and Acacia.

Naturemap searches have identified 11 conservation significant flora species (Priority flora) with the potential to occur within the application area based on known distributions. Analysis of FloraBase records indicate that five

of these Priority flora species are more likely to occur within the application area based on habitat preferences (Western Australian Herbarium, 1998-). Clearing of Priority flora should be avoided wherever possible. Five Threatened flora species were identified by the EPBC Act Protected Matters searches, although no Threatened flora were identified by Naturemap searches.

The original permit area (CPS 5651/1) is located on mobile sand dunes over predominantly sparsely vegetated areas. The amendment application area (CPS 5651/2) represents a substantial increase in both the amount of vegetation to be cleared (an additional 15 hectares) and the clearing permit boundary (an additional 26 hectares) and includes much denser vegetation on more stable dune areas, which are likely to support a wider range of fauna and flora species. It is difficult to fully assess the potential impacts of the proposed additional 15 hectares of clearing in the absence of adequate on-site survey information. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a flora management condition, which requires a minimum of a targeted on-site survey for conservation significant flora to be conducted and survey results to be provided to DMP, prior to undertaking any clearing within the eastern side of the amendment area.

The application area occurs on sand dunes (GIS Database), which are naturally subject to wind erosion, however the removal of vegetation cover from the dunes may result in increased rates of wind erosion. The amendment application requested the removal of the permit condition which restricted the amount of clearing that could be undertaken in any one year. However, this condition has been retained on the permit, with a modification to increase the amount of clearing allowed per year. Potential erosion as a result of the proposed clearing may be minimised by the implementation of staged clearing conditions, which restrict the timing of vegetation clearing activities to less than three months prior to the commencement of sand extraction activities, and limit the amount of clearing which can be undertaken within any one year to a maximum of three hectares. The permit duration has been extended by five years to accommodate the additional 15 hectares of clearing at a rate of three hectares per year.

The application area does not fall within any conservation areas (GIS Database). However, it forms part of a continuous strip of sand dunes which extend in a north-south direction and connect with the Beekeepers Nature Reserve which is located approximately three kilometres to the south-southeast of the application area, at its nearest point (GIS Database). The proposed additional fifteen hectares of clearing will be undertaken progressively in small sections, with rehabilitation of excavated areas occurring progressively as the sand mining face moves across the site (Westdeen, 2016). The small areas of clearing will reduce potential impacts to fauna and are unlikely to significantly disrupt ecological linkages through the sand dune vegetation. The fauna habitats within the amendment application area are likely to be similar to those occurring in similar dune areas outside of the application area. Although several fauna species of conservation significance have the potential to occur within the amendment area (mostly bird species), none are likely to be specifically dependant on the area proposed to be cleared.

No Threatened or Priority Ecological Communities have been recorded within or in close proximity to the application area (GIS Database).

The application area is not within or in close proximity to a Public Drinking Water Source Area, and there are no watercourses or wetlands within the amendment area (GIS Database). The proposed clearing is unlikely to have any significant impact on surface water or groundwater quality or on the incidence or intensity of flooding.

The amendment application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*. Environmental information has been reviewed, and the proposed clearing may be at variance to Principles (a), (c) and (g), is not likely to be at variance to Principles (b), (d), (h), (i) and (j) and is not at variance to Principles (e) and (f).

Methodology Biggs (2013)
CALM (2002)
Department of Natural Resources and Environment (2002)
Government of Western Australia (2015)
Westdeen (2016)
Western Australian Herbarium (1998-)

GIS Database:

- DPaW Tenure
- Hydrography, linear
- Imagery
- Pre-European Vegetation
- Public Drinking Water Source Areas
- Threatened and Priority Flora
- Threatened and Priority Ecological Communities - Boundaries
- Threatened Fauna

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

Comments There are two native title claims over the area under application (DAA, 2016). These claims (WC1996/093 and WC1997/072) have been registered with the National Native Title Tribunal on behalf of the claimant groups. 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 databases, there are no registered Aboriginal Sites of Significance within the application area (DAA, 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 application area occurs partly within the Port Denison Townsite boundary (GIS Database).

The amendment application was advertised on 29 August 2016 and readvertised on 12 December 2016 following a change in the application area, inviting submissions from the public. One submission was received raising concerns over potential dust issues. The natural sand dunes at the site are likely to be subject to naturally occurring wind erosion and sand drift, however it is acknowledged that dust levels may increase following the removal of vegetation cover from the sand dunes. Increased dust may be caused by the clearing of native vegetation or by the proposed sand extraction operations following the vegetation removal. Potential dust issues from the vegetation clearing activities have been addressed by imposing additional management conditions on the amended clearing permit. Furthermore, existing tenement conditions on Mining Lease 70/309 restrict active mining to 1.5 hectares at any one time and require progressive rehabilitation of mined areas. A Mining Proposal must be submitted by the tenement holder and approved by DMP before the sand mining operations can commence within the amendment area, and dust management will be further addressed under the provisions of the *Mining Act 1978*. A written response to the submission has also been provided.

Methodology DAA (2016)

4. References

- Biggs (2013) Dongara Lime Sand Project M70/309 Clearing Application CPS 5651/1 Support Document. Report prepared for Westdeen Holdings Pty Ltd, by Biggs and Associates Consulting Services, 29 July 2013.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management.
- DAA (2016) Aboriginal Heritage Inquiry System, Department of Aboriginal Affairs. <http://maps.dia.wa.gov.au/AHIS2/> (Accessed 29 December 2016).
- Government of Western Australia (2015) 2015 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2015. WA Department of Parks and Wildlife, 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.
- Westdeen (2016) Dongara Lime Sand Project M70/309 Clearing Amendment to CPS 5651/1 - Supporting Document. Westdeen Holdings Pty Ltd, August 2016.
- Western Australian Herbarium (1998 -). FloraBase—the Western Australian Flora. Department of Parks and Wildlife. <https://florabase.dpaw.wa.gov.au/>

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)
DEE	Department of the Environment and Energy, Australian Government
DER	Department of Environment Regulation, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DRF	Declared Rare Flora
DoE	Department of the Environment, Australian Government (now DEE)
DoW	Department of Water, Western Australia
DPaW	Department of Parks and Wildlife, Western Australia
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
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
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.