



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 5652/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: **Westdeen Holdings Pty Ltd**

### 1.3. Property details

Property: Mining Lease 70/307  
Local Government Area: Shire of Dandaragan  
Colloquial name: Jurien Bay Limesand Project

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4		Mechanical Removal	Limesand extraction and associated activities

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 19 December 2013

## 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. Two Beard association is located within the application area (Government of Western Australia, 2013: GIS Database):

129: Bare areas; rock outcrops

1026: Mosaic; Shrublands; *Acacia rostellifera*, *A. Cyclops* (in the south) & *Melaleuca cardiophylla* (in the north) thicket / Shrublands; *Acacia lasiocarpa* & *Melaleuca acerosa* heath

A vegetation survey was conducted over the application area on 18 July 2013 by Biggs and Associates Consulting Services (Biggs) (2013). The survey found that the highly mobile sand dunes that are the target of the extraction operation have little to no vegetation cover (Biggs, 2013).

Aerial photography indicates that the permit area mainly consists of isolated pockets of vegetation. A site visit undertaken by the assessing officer on 28 August 2013 confirmed that the vegetation was very sparse, with some areas showing colonisation of a single shrub species, most likely emerging after increased rainfall over the past two years.

**Clearing Description** Jurien Limesand Project. Westdeen Holdings Pty Ltd (Westdeen) proposes to clear 4 hectares of native vegetation within a total boundary area of approximately 20 hectares for the purpose of extracting lime sand. The proposal is located approximately six kilometres north of Jurien Bay in the Shire of Dandaragan.

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

**Comment** The proposed clearing is to enable the ongoing removal of limesand from the coastal dune system. Sand is excavated using a dozer then taken off site by a dump truck. After areas have been excavated, stockpiled vegetation is used to progressively rehabilitate the site (Biggs, 2013).

The application is within Beekeeper's Nature Reserve.

The vegetation condition was assessed by the assessing officer during a site visit on 28 August 2013.

## 3. Assessment of application against clearing principles

### (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

**Comments** **Proposal is not likely to be at variance to this Principle**  
The application area falls within the Swan Coastal Plain (SWA02) subregion of the Swan Coastal Plain Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database). This subregion is described as a low lying coastal plain, mainly covered with woodlands (CALM, 2002). It is dominated by Banksia or Tuart on sandy soils, *Casuarina obesa* on outwash plains and paperbark in swampy areas (CALM, 2002).

A combined flora and fauna investigation has been undertaken over the application area (Biggs, 2013). The investigation consisted of a threatened and priority flora and fauna database search and targeted survey of the site (Biggs, 2013). The database search has identified 48 species of flora and fauna within a two kilometre buffer of the application area (Biggs, 2013). The assessing officer has determined via a database search that the 48 species comprises 10 fauna and 37 flora species (DEC, 2013).

The threatened flora species *Grevillea christineae* and Priority 3 flora species *Stylidium maritimum* were identified within two kilometres of the application area (Biggs, 2013). None of these species were found within the application area (Biggs, 2013).

A site visit was undertaken by the assessing officer on 28 August 2013. It was noted that the application area occurs mainly on a mobile sand dune and the vegetation is confined to isolated pockets of scrub. The level of species diversity in the surrounding area appears to be high, which is attributed to the presence of Beekeepers Nature Reserve; however it is not considered likely that the vegetation within the application area contains this level of diversity due to the nature of the vegetation.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** Biggs (2013)  
CALM (2002)  
DEC (2013)  
GIS Database:  
- IBRA WA (regions – subregions)

**(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.**

**Comments Proposal is not likely to be at variance to this Principle**

Biggs (2013) has undertaken a fauna investigation consisting of a threatened and priority fauna database search and targeted survey of the site. Biggs (2013) has concluded that five conservation significant species may occur within the application area. These species are; Western Quoll, Carnaby's Black Cockatoo, Malleefowl, Dibbler and Shield-backed Trapdoor Spider (Biggs, 2013).

The site survey conducted by Biggs (2013) did not record any evidence of these species using the site. Taking into account the preferred habitat and range of these species, it is considered unlikely that the proposed clearing will have a significant impact on these species.

The vegetation within the application area consists of isolated pockets of dune scrub within a predominantly sand dune environment. The small scale clearing of this type of vegetation is unlikely to have a significant impact on the overall fauna of the local area, especially given that there are areas of extensive vegetation surrounding the application area (GIS Database).

Based on the above the proposed clearing is not likely to be at variance to this Principle.

**Methodology** Biggs (2013)  
GIS Database:  
- Lancelin Townsite Mar 2011 Mosaic

**(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.**

**Comments Proposal is not likely to be at variance to this Principle**

According to available databases, there are no records of Threatened Flora species within the application area (GIS Database). A search of the Department of Environment and Conservations' Threatened and Priority Flora databases identified one Threatened Flora species; *Grevillea christineae* occurring within 10 kilometres of the application area (DEC, 2007 -). Based on the species' preferred habitat, it is unlikely to occur within the application area (Western Australian Herbarium, 1998 -).

No Threatened Flora was recorded during the vegetation survey undertaken by Biggs (2013).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** Biggs (2013)  
DEC (2007 -)  
Western Australian Herbarium (1998 -)  
GIS Database:  
- Threatened and Priority 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.**

**Comments Proposal is not likely to be at variance to this Principle**

According to available databases, there are no known Threatened Ecological Communities (TECs) within the application area (GIS Database). The nearest known TEC is approximately 20 kilometres north-east of the application area (GIS Database).

Based on the above the proposed clearing is not likely to be at variance to this Principle.

**Methodology** GIS Database:  
- Threatened Ecological Sites Buffered

**(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.**

**Comments Proposal is not at variance to this Principle**

The application area is located within the Swan Coastal Plain Interim Biogeographical Regionalisation of Australia (IBRA) bioregion (GIS Database) of which approximately 39.15% of pre-European vegetation remains (Government of Western Australia, 2013).

The vegetation within the application area has been broadly mapped as Beard vegetation associations:

129: Bare areas; drift sand

1026: Mosaic; Shrublands; *Acacia rostellifera*, *A. Cyclops* (in the south) & *Melaleuca cardiophylla* (in the north) thicket / Shrublands; *Acacia lasiocarpa* & *Melaleuca acerosa* heath

The assessing officer visited the site in August 2013 and noted that the vegetation was predominantly Beard vegetation association 129: bare areas; drift sand.

Approximately 91.20% of Beard vegetation association 129 and 94.11% of Beard vegetation association 1026 remain within the Swan Coastal Plain bioregion (Government of Western Australia, 2013).

At a local context, a review of aerial photography indicates that there are areas of extensive vegetation surrounding the application area. The vegetation proposed to be cleared does not appear to form a significant linkage between areas of vegetation (GIS Database)

Based on the above, the proposed clearing is not at variance to this Principle.

**Methodology** Government of Western Australia (2013)  
GIS Database:  
- IBRA WA (Regions – Sub Regions)  
- Lancelin Townsite Mar 2011 Mosaic  
- Ledge Point 50cm Orthomosaic – Landgate 2008  
- Pre-European Vegetation

**(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.**

**Comments Proposal is not at variance to this principle**

There are no watercourses or wetland areas found within the application area (GIS Database).

Based on the above, the proposed clearing is not at variance to this Principle.

**Methodology** GIS Database:  
- Hydrography - Linear

**(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.**

**Comments Proposal is not likely to be at variance to this Principle**

The soil within the application area has been mapped as soil type A13 (GIS Database), which Northcote (1960 – 1968) describes as: Coastal dune formations backed by the low-lying deposits of inlets and estuaries: chief soils are calcareous sands on the dunes.

Due to the largely unvegetated state of the sand dune and the strong coastal winds in the Jurien Bay area, it is likely that wind erosion is already naturally occurring at the site. This is evident from the moving nature of these sand dunes (Biggs, 2013). Clearing some pockets of vegetation from the dune may slightly increase the amount of sand that is exposed to wind erosion, however in the context of the much larger dune system, this increase is not considered to be significant.

Based on above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** Biggs (2013)  
Northcote (1960 – 1968)  
GIS Database:  
- Soils, Statewide

**(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.**

**Comments Proposal may be at variance to this Principle**

The application area falls within Beekeepers Nature Reserve, which is vested in the Conservation Commission of WA for the purpose of 'Protection of Flora' (GIS Database).

The Department of Parks and Wildlife (DPaW) was invited to provide comments or advice on the application. DPaW advised that there was insufficient information in the permit documentation to properly assess the impact of the application relative to Principle (h) (DPaW, 2013). Furthermore, DPaW advised that it would not support the application being considered or approved prior to the availability of a mining proposal (DPaW, 2013).

It is worth noting that the absence of a Mining Proposal required under the *Mining Act 1978* does not impede the granting of a Clearing Permit. It is the responsibility of the proponent to obtain all relevant licenses and approvals prior to undertaking clearing.

The application was referred to the Environmental Protection Authority (EPA) given its location within a conservation reserve. The EPA set the level of assessment as "Not assessed – managed under Part V Division 2 of the EP Act (clearing)". The EPA considered that the proposal was unlikely to have a significant effect on the environment and the potential impacts to flora and fauna can be dealt with under the clearing permit (EPA, 2013).

The application area falls within an approximate 3952 hectare section of Beekeepers Nature Reserve located six kilometres north of Jurien (GIS Database). The application area covers a large sand dune that contains relatively sparse vegetation (Biggs, 2013). The assessing officer visited the site in August 2013 and confirmed that the vegetation was mostly isolated pockets of vegetation. It was noted that these species appeared to be common in the area.

A flora survey was undertaken over the application area targeting conservation significant flora species (Biggs, 2013). There were no conservation significant species recorded within the application area (Biggs, 2013). Although the proposed clearing may be at variance to this Principle, the proposed clearing is not considered likely to significantly impact on the conservation values of Beekeepers Nature Reserve.

**Methodology** Biggs (2013)  
DPaW (2013)  
EPA (2013)  
GIS Database:  
- DEC Tenure

**(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.**

**Comments Proposal not likely to be at variance to this Principle**

The application area is not within a Public Drinking Water Source Area. There are no watercourses, wetlands or significant hydrological features located within the application area (GIS Database). This was confirmed by the assessing officer during the site visit conducted on 28 August 2013.

Given the small scale of clearing, there are no likely impacts on groundwater.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** GIS Database:  
- Hydrography - Linear  
- Public Drinking Water Source Areas (PDWSAs)

**(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.**

**Comments Proposal not likely to be at variance to this Principle**

The climate of the Jurien Bay area is characterised by hot dry summers and cool wet winters, with an average 561.9mm of rain received annually (BoM, 2013). The area under application is located on a coastal dune characterised by sandy soils over aeolianite (Northcote, 1960 – 1968). During rainfall events, water is likely to

move through the soil profile rather than flow along the surface or collect and flood.

The clearing of four hectares within an application area of 20 hectares is not considered likely to increase the incidence or severity of flooding.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** BoM (2013)  
Northcote (1960 - 1968)

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

##### **Comments**

There two native title claims (WC1997/071 and WC2003/006) over the area under application. These claims have been registered with the National Native Title Tribunal on behalf of the claimant group and filed at the Federal Court of Australia respectively. However, the tenements have 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 (formally the Department of Environment and Conservation) 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 1 July 2013 by the Department of Mines and Petroleum inviting submissions from the public. One submission was received raising no objections.

The application was referred to the Environmental Protection Authority (EPA) given its location within a conservation reserve. The EPA set the level of assessment as "Not assessed – managed under Part V Division 2 of the EP Act (clearing)". The EPA considered that the proposal was unlikely to have a significant effect on the environment and the potential impacts to flora and fauna can be dealt with under the clearing permit (EPA, 2013).

**Methodology** EPA (2013).  
GIS Database:  
- Aboriginal Sites of Significance  
- Native Title Claims – Filed at the Federal Court  
- Native Title Claims – Registered with the NNTT

#### **4. References**

- Biggs (2013) Clearing Application CPS 5652/1 – Support Document. Unpublished report prepared for Westdeen Holdings Pty Ltd
- BoM (2013) Jurien Daily Rainfall. Bureau of Meteorology. URL  
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- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management.
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation.  
<http://naturemap.dec.wa.gov.au/default.aspx> (date accessed 4 September 2013).
- DPaW (2013) Advice on clearing permit application CPS 5652/1 – received on 6 September 2013.
- EPA (2013) Weekly record of determinations for S38, S16 and/or S46 advice. Environmental Protection Authority. Western Australia.
- Government of Western Australia. (2013). 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. 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.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Parks and Wildlife.  
<http://florabase.dpaw.wa.gov.au/> (date accessed 2 September 2013).

## 5. Glossary

### Acronyms:

<b>BoM</b>	Bureau of Meteorology, Australian Government
<b>CALM</b>	Department of Conservation and Land Management (now DEC), Western Australia
<b>DAFWA</b>	Department of Agriculture and Food, Western Australia
<b>DEC</b>	Department of Environment and Conservation, Western Australia
<b>DEH</b>	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
<b>DEP</b>	Department of Environment Protection (now DEC), Western Australia
<b>DIA</b>	Department of Indigenous Affairs
<b>DLI</b>	Department of Land Information, Western Australia
<b>DMP</b>	Department of Mines and Petroleum, Western Australia
<b>DoE</b>	Department of Environment (now DEC), Western Australia
<b>DoIR</b>	Department of Industry and Resources (now DMP), Western Australia
<b>DOLA</b>	Department of Land Administration, Western Australia
<b>DoW</b>	Department of Water
<b>EP Act</b>	Environmental Protection Act 1986, Western Australia
<b>EPBC Act</b>	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
<b>GIS</b>	Geographical Information System
<b>ha</b>	Hectare (10,000 square metres)
<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia
<b>IUCN</b>	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
<b>RIWI Act</b>	Rights in Water and Irrigation Act 1914, Western Australia
<b>s.17</b>	Section 17 of the Environment Protection Act 1986, Western Australia
<b>TEC</b>	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.