

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 7105/1

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Westdeen Holdings Pty Ltd

1.3. Property details

Property: Mining Lease 70/1271

Local Government Area: Shire of Irwin

1.4. Application

Clearing Area (ha) No. Trees Method of Clearing For the purpose of: 4.5 Mechanical Removal Mineral production

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 28 July 2016

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Beard vegetation associations have been mapped for the whole of Western Australia. Two Beard vegetation associations are

Description located within the application area (GIS Database):

Beard vegetation association 772: Shrublands; Acacia lasiocarpa & Melaleuca acerosa heath

Beard vegetation association 129: Bare areas; dune sand.

Clearing Description

Westdeen Holdings Pty Ltd proposes to clear up to 4.5 hectares of native vegetation within a total boundary of approximately 4.5 hectares, for the purpose of mineral production. The project is located approximately 5 kilometres south east of Port Denison in

the Shire of Irwin.

Vegetation Condition

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

To:

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

Comment

The condition of the vegetation under application was determined via the use of aerial imagery. The proposed clearing will allow for the planning of road access areas and to actively mine the limesand resource (Westdeen Holdings, 2016).

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 proposed clearing of 4.5 hectares of native vegetation will allow for the mining of the limesand resource and planning for road access (Westdeen Holdings, 2016).

The application areas fall within the Lesueur Sandplain sub-region of the Geraldton Sandplains Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database). This subregion is described as comprising coastal Aeolian and limestones, Jurassic siltstones and sandstones (often heavily lateritised) of central Perth Basin. Alluvials are associated with drainage systems. There are extensive yellow sandplains in south-eastern parts, especially where the subregion overlaps the western edge of the Pilbara Craton. Shrubheaths rich in endemics occur on a mosaic of lateritic mesas, sandplains, coastal sands and limestones. Heath on lateritised sandplains along the subregions north-eastern margins. (CALM, 2002).

The soils mapped over the application area are chiefly comprised of calcareous sands on the dunes (Northcote *et al.* 1960-68), with an underlying limestone lithology (GIS Database).

No Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) are known within the application area (GIS Database). The closest TEC is located over 50 kilometres south east (GIS Database).

According to available databases, one Priority 1 flora species, two Priority 2 flora species, five Priority 3 flora species and six Priority 4 listed flora species have been recorded within the local area (10 kilometre radius) (DPaW, 2016). The proposed clearing is not likely to impact on the conservation status of Priority 3 or 4 listed flora species.

The Priority 2 flora species *Dampiera tephrea* is associated with a number of habitats, including brown sand yellow sand, grey sand, white sand, river banks and wetlands. This species is sometimes associated with limestone but is widely distributed throughout the region, with records ranging from Gingin to just north of Jurien Bay. Preferred habitat for *Stylidium* sp. Three Springs (P2) is not present within the application area (Western Australian Herbarium, 1998-).

The Priority 1 flora species *Scholtzia* sp. Dongara is only known from five records, all of which are in the Dongara/Arrowsmith area (Western Australian Herbarium, 1998-). However, this species is restricted to yellow sands over limestone and has not been recorded within five kilometres of the application area. Given that the limesand targeted for removal is not ideal habitat for *Scholtzia* sp. Dongara, impacts to this species area unlikely.

As the site has been subject to previous disturbance and mining activities, weeds have established within the application area and surrounds (Westdeen Holdings, 2016). The application area is also located within a Dieback (*Phytophthora cinnamomi*) Risk Zone (GIS Databse). Care must be taken to ensure that the proposed clearing activities do not spread or introduce weed or dieback species to non-infested areas. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed and dieback management condition.

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

Methodology

CALM (2002)

DPaW (2016) Keighery (1994)

Westdeen Holdings (2016)

Western Australian Herbarium (1998-)

GIS Database:

- IBRA WA (Regions Sub Regions)
- Imagery
- Pre-European vegetation
- Threatened and Priority Ecological Communities Buffers
- Threatened and Priority Ecological Communities Boundaries

(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

Ten fauna species of conservation significance have been recorded within the local area (10 kilometre radius) (DPaW, 2016). Of these, seven are migratory species that are unlikely to be adversely impacted by the proposed clearing (DPaW, 2016). The three remaining species include the Carnaby's cockatoo (*Calyptorhynchus latirostris* – EN), Chudich (*Dasyurus geoffroii* - VU), and Australian lesser noddy (*Anous tenuirostris* subsp. *melanops* - EN). The Australian lesser noddy is a marine bird that occupies coral-limestone islands, nests in mangroves and is usually only sited resting on beaches during the day (DotE, 2016a).

The application area does not contain suitable foraging, feeding or roosting habitat for Carnaby's (DotE, 2016b). The Chuditch is known to utilise a wide range of habitats, including beaches (DEC, 2012), however, given that there are large amounts of native vegetation remaining in the local area, including the adjacent Beekeepers Nature Reserve, which has an extent of over 66,000 hectares (GIS Database), impacts to the Chuditch are likely to be negligible.

Impacts to local fauna species (including species of conservation significance) are not likely to be significant due to the small size of the proposed clearing and large amount of surrounding vegetation situated in the local area.

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

Methodology

DPaW (2016)

DotE (2016a) DotE (2016b)

DEC (2012)

GIS Database:

- DPaW Tenure
- Imagery

(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, no Threatened flora species have been recorded within the local area (10 kilometre radius) (DPaW, 2016).

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

Methodology DPaW (2016)

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 at variance to this Principle

According to available databases, there are no known Threatened Ecological Communities (TECs) within the application area (GIS Database). The closest TEC is located over 50 kilometres south east (GIS Database).

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

Methodology GIS Database:

- Threatened and Priority Ecological Communities Buffers
- Threatened and Priority Ecological Communities Boundaries

(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 occurs within the Geraldton Sandplains Interim Biogeographic Regionalisation of Australia bioregion, in which approximately 45% of the pre-European vegetation remains (see table below) (Government of Western Australia, 2014; GIS Database). Two Beard vegetation associations have been mapped within the application area (GIS Database). As the below table indicates, Beard vegetations 129 and 772 are well represented within the state and bioregion, retaining levels above the recommended 30% threshold of pre-European settlement levels of native vegetation (Commonwealth of Australia, 2001).

Large areas large of native vegetation remain in the local area, including the adjacent Beekeepers Nature Reserve, which has an extent of over 66,000 hectares (GIS Database).

Given the relatively small scale of the proposed clearing and large amount of connected native vegetation in the local area and region (GIS Database), the native vegetation under application is not considered to be a remnant in a highly cleared area.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DPaW Managed Lands
IBRA Bioregion – Geraldton Sandplains	3,136,038	1,404,375	~ 44.8	Least concern	~48.7
Beard veg assoc State					
129	95,286	82,863	~ 87.0	Least concern	~ 24.3
772	4,827	4,615	~ 95.0	Least concern	~ 80.3
Beard veg assoc Bioregion					
129	6,470	6,093	~ 94.2	Least concern	~ 20.6
772	4,808	4,615	~ 96.0	Least concern	~ 80.2

^{*} Government of Western Australia (2014)

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

Methodology

Commonwealth of Australia (2001)

Department of Natural Resources and Environment (2002)

^{**} Department of Natural Resources and Environment (2002)

Government of Western Australia (2014)

GIS Database:

- DPaW Tenure
- IBRA Australia
- Imagery
- 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 wetlands mapped 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
- Hydrography, linear (hierarchy)
- (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 amendment area occurs on a mobile dune system where wind erosion occurs naturally. While the proposed clearing will result in the loss of vegetation which is currently preventing increased wind erosion, the proposed clearing is unlikely to greatly exacerbate existing wind erosion regimes.

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

Methodology

GIS Database

- Imagery
- 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 is not likely to be at variance to this Principle

The application area abuts the Beekeepers Nature Reserve (GIS Database). Given that the application area has been subject to previous disturbance and mining activities, and occurs on a mobile dune system that is migrating north, impacts resulting from the proposed clearing are not likely to compromise the integrity or environmental values of the Beekeepers Nature Reserve.

The Beekeepers Nature Reserve has an extent of over 66,000 hectares and large amounts of native vegetation remain within the local area and region (GIS Database). Due to the relatively small scale and low impact nature of clearing activities and its proximity to extensive areas of remaining native vegetation, the proposed clearing is unlikely to result in significant impacts to adjacent or nearby conservation areas.

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

Methodology

GIS Database:

- DPaW Tenure
- Imagery
- (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 is not likely to be at variance to this Principle

The application area does not fall with a Public Drinking Water Source Areas (PDWSA) (GIS Database).

No watercourses or wetlands are mapped within the application area; therefore surface water quality issues are not likely to be a factor. The application area is located within the Greenough River Catchment Area, where groundwater salinity is considered saline (3000 to 7000 milligrams/Litre Total Dissolved solids) (GIS Database). The proposed clearing of 4.5 hectares of native vegetation is considered unlikely to result in a further deterioration in the quality of groundwater.

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

Methodology

GIS Database:

- Groundwater Salinity, Satewide
- Hydrography, linear
- Public Drinking Water Source Areas (PDWSAs)

- RIWI Act, Groundwater Areas

(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 is not likely to be at variance to this Principle

The climate of the Port Denison area is characterised by hot dry summers and cool wet winters, with an average rainfall of approximately 403 mm (BoM, 2016). The area under application is located on a coastal dune characterised by sandy soils over aeolianite (Northcote *et al.* 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 proposed clearing of 4.5 hectares of native vegetation within a coastal dune system 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 (2016)

Northcote et al. (1960-68)

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 (WC2004/002 and WC1997/072) (DAA, 2016). However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act* 1993 and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act* 1993.

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

It is the proponent's responsibility to liaise with the Department of Environment Regulation, the Department of Parks and Wildlife and the Department of Water, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

A mining proposal had been approved under the *Mining Act 1978*, allowing specific activities within Mining Lease 70/1271. It is the proponent's responsibility to ensure that all activities are undertaken in accordance with existing Mining Act approvals.

The clearing permit application was advertised on 20 June 2016 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to this application.

Methodology DAA (2016)

4. References

BoM (2016) Climate Statistics for Australian Locations. A Search for Climate Statistics, Australian Government Bureau of Meteorology. http://www.bom.gov.au (Accessed July 2016).

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management.

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

DAA (2016) Aboriginal Heritage Inquiry System, Department of Aboriginal Affairs, Perth, Western Australia http://maps.dia.wa.gov.au (Accessed 01 July 2016).

DEC (2012) Chuditch (*Dasyurus geoffroii*) Recovery Plan. Wildlife Management Program No. 54. Department of Environment and Conservation, Perth, Western Australia.

Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.

DotE (2016a) *Anous tenuirostris* subsp. *melanops* in Species Profile and Threats Database, Department of the Environment, Canberra < http://www.environment.gov.au> (Accessed July 2016).

DotE (2016b) Calyptorhynchus latirostris in Species Profile and Threats Database, Department of the Environment, Canberra, http://www.environment.gov.au (Accessed July 2016).

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

Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2014. 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.

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.

Westdeen Holdings (2016) Dongara Limesand Project, Native Vegetation Clearing Application Supporting Document.

Westdeen Holdings Pty Ltd, Western Australia, June 2016

Western Australian Herbarium (1998–) FloraBase—the Western Australian Flora. Department of Parks and Wildlife. https://florabase.dpaw.wa.gov.au (Accessed July 2016).

5. Glossary

Acronyms:

BoM Bureau of Meteorology, Australian Government
DAA Department of Aboriginal Affairs, Western Australia
DAFWA Department of Agriculture and Food, Western Australia

DEC Department of Environment and Conservation, Western Australia (now DPaW and DER)

DER Department of Environment Regulation, Western Australia
DMP Department of Mines and Petroleum, Western Australia

DRF Declared Rare Flora

DotE Department of the Environment, Australian Government

DoW Department of Water, Western Australia

DPaW Department of Parks and Wildlife, Western Australia

DSEWPaC Department of Sustainability, Environment, Water, Population and Communities (now DotE)

EPA Environmental Protection Authority, Western Australia
EP Act Environmental Protection Act 1986, Western Australia

EPBC Act Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)

GIS Geographical Information System ha Hectare (10,000 square metres)

IBRA Interim Biogeographic Regionalisation for Australia

IUCN International Union for the Conservation of Nature and Natural Resources – commonly known as the

World Conservation Union

PEC Priority Ecological Community, Western Australia

RIWI Act Rights in Water and Irrigation Act 1914, Western Australia

TEC Threatened Ecological Community

Definitions:

{DPaW (2015) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

T Threatened species:

Published as Specially Protected under the *Wildlife Conservation Act 1950*, listed under Schedules 1 to 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).

Threatened fauna is that subset of 'Specially Protected Fauna' declared to be 'likely to become extinct' pursuant to section 14(4) of the Wildlife Conservation Act.

Threatened flora is flora that has been declared to be 'likely to become extinct or is rare, or otherwise in need of special protection', pursuant to section 23F(2) of the Wildlife Conservation Act.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

CR Critically endangered species

Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

EN Endangered species

Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

VU Vulnerable species

Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

EX Presumed extinct species

Species which have been adequately searched for and there is no reasonable doubt that the last individual has died. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora.

IA Migratory birds protected under an international agreement

Birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and the Bonn Convention, relating to the protection of migratory birds. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.

CD Conservation dependent fauna

Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.

OS Other specially protected fauna

Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.

P Priority species

Species which are poorly known; or

Species that are adequately known, are rare but not threatened, and require regular monitoring. Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

P1 Priority One - Poorly-known species:

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

P2 Priority Two - Poorly-known species:

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

P3 Priority Three - Poorly-known species:

Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

P4 Priority Four - Rare, Near Threatened and other species in need of monitoring:

- (a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands.
- (b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for Vulnerable, but are not listed as Conservation Dependent.
- (c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.