



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 6384/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: **Dampier Salt Limited**

### 1.3. Property details

Property: *Leslie Solar Salt Industry Agreement Act 1966, Mineral Lease 242SA (AML 70/242)*  
Local Government Area: Town of Port Hedland  
Colloquial name: Borrow Pits

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
6		Mechanical Removal	Borrow Pits and Associated Activities

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 8 January 2015

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
<p>The clearing permit application area has been broadly mapped as Beard vegetation association: 127: Bare areas and mud flats.</p> <p>A flora and vegetation survey conducted by Biota (Biota, 2014) over the application area identified the following two vegetation types:</p> <p><b>R1:</b> <i>Acacia stellaticeps</i> (<i>Diplopeltis eriocarpa</i>) low open shrubland over <i>Triodia</i> aff. <i>epactia</i> open hummock grassland.</p> <p><b>S1:</b> <i>Acacia stellaticeps</i> low open shrubland over <i>Triodia</i> aff. <i>epactia</i> hummock grassland with <i>Eriachne obtusa</i> very open tussock grassland.</p>	<p>Borrow Pits.</p> <p>Dampier Salt Ltd proposes to clear up to 6 hectares of native vegetation within a total boundary of approximately 6.1 hectares, for the purpose of borrow pits. The project is located approximately 12 kilometres south east of Port Hedland, in the Town of Port Hedland.</p>	<p>Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).</p>	<p>Vegetation condition derived from a flora and vegetation survey conducted by Biota (2014).</p>

## 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 is located within the Roebourne sub-region of the Pilbara Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database). The Roebourne subregion is broadly described as quaternary alluvial plains with a grass savanna (typically *Triodia* hummock grasslands) and shrub steppe of *Acacia stellaticeps* or *A. pyrifolia* and *A. inaequilatera*. Areas of Samphire, *Sporobolus* and Mangal occur on marine alluvial flats (Kendrick and Stanley, 2003).

A flora and vegetation survey was conducted by Biota over the application area in July 2014 (Biota, 2014). A total of 38 native vascular flora taxa from 29 genera belonging to 20 families were recorded from the application area during the survey (Biota, 2014). This does not represent a high level of biological diversity and is representative of the surrounding area (Biota, 2014).

No Threatened Ecological Communities, Priority Ecological Communities, Threatened, Priority flora species or vegetation associations of restricted distribution were recorded within the application area during the flora and vegetation survey (Biota, 2014).

Two introduced flora (weed) species (*Aerva javanica* (Kapok Bush) and *Cenchrus ciliaris* (Buffel Grass)) were

recorded within the application area (Biota, 2014). None of the weed species recorded within the application area are listed as *Weeds of National Significance* or listed as a declared pest in the region under the Western Australian *Biosecurity and Agriculture Management Act 2007* (Biota, 2014). Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

A fauna habitat assessment and field survey were conducted by Biota over the application area in July 2014. No conservation significant fauna species were recorded within the application area during the field survey (Biota, 2014). However, five conservation significant fauna species (Australian Bustard (*Ardeotis australis*) P4, Bush Stone-curlew (*Burhinus grallarius*) P4, Little Northern Freetail Bat (*Mormopterus loriae*) P1 and Woma (*Aspidites ramsayi*) S) may potentially occur on limestone ridges in the application area (Biota, 2014). All of these species are known from the locality surrounding the application areas and are widespread through the broader Pilbara bioregion (Biota, 2014).

The vegetation associations and fauna habitats identified during the survey extend outside the application area and are well represented within the region (Biota, 2014; GIS Database).

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

**Methodology** Biota (2014)  
Kendrick and Stanley (2003)  
GIS Database:  
- IBRA WA (Regions - Sub Regions)  
- Pre-European Vegetation  
- Threatened and Priority Flora  
- Threatened Ecological Sites Buffered

**(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**

A fauna habitat assessment and field survey were conducted by Biota over the application area in July 2014. The survey identified the following two broad fauna habitats within the application area: Limestone ridges and swales and plains. None of these broad fauna habitats are considered to be restricted to the application area however limestone ridges within the limestone coastal zone may be of limited occurrence in the region (Biota, 2014, GIS Database). The applicant amended the application area following recommendations from Biota (2014) in order to minimise impacts on this area and to ensure that a significant proportion of limestone ridge habitat is present outside the application area (Biota, 2014).

Five conservation significant fauna species (Australian Bustard (*Ardeotis australis*) P4, Bush Stone-curlew (*Burhinus grallarius*) P4, Little Northern Freetail Bat (*Mormopterus loriae*) P1 and Woma (*Aspidites ramsayi*) S) may potentially occur on limestone ridges in the application area (Biota, 2014). All of these species are known from the locality surrounding the application areas and are widespread through the broader Pilbara bioregion (Biota, 2014).

No conservation significant fauna species were recorded within the application area during the fauna field survey and no fauna habitats within the application area were identified as crucial for the survival of fauna indigenous to Western Australian (Biota, 2014).

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

**Methodology** Biota (2014)  
GIS Database:  
- Pre-European Vegetation  
- Threatened and Priority Fauna  
- Threatened Ecological Sites Buffered

**(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**

There are no records of Threatened Flora within the application area (GIS Database).

The flora and vegetation survey conducted by Biota over the application area did not record any species of Threatened Flora and none were expected to occur due to lack of suitable habitat (Biota, 2014).

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

**Methodology** Biota (2014)  
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**

There are no known Threatened Ecological Communities within the application area (GIS Database).

The flora and vegetation survey conducted by Biota over the application area did not record any Threatened Ecological Communities and none were expected to occur due to lack of suitable habitat (Biota, 2014).

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

**Methodology** Biota (2014)  
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 falls within the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregion in which approximately 99% of the Pre-European vegetation remains (see table) (GIS Database; Government of Western Australia, 2013).

The vegetation of the application area has been mapped as the following Beard vegetation association (GIS Database):

127: Bare areas and mud flats.

Approximately 95% of Beard vegetation association 127 remains at state level and 97% at the bioregional level (Government of Western Australia, 2013). Therefore, the area proposed to be cleared does not represent a significant remnant of native vegetation within an area that has been extensively cleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DPaW Managed Lands
IBRA Bioregion - Pilbara	17,808,657	17,733,584	~99	Least Concern	8.2
Beard vegetation associations - State					
127	737,724	697,871	~95	Least Concern	9.1
Beard vegetation associations - Bioregion					
127	716,161	691,516	~97	Least Concern	13.2

\* Government of Western Australia (2013)

\*\* Department of Natural Resources and Environment (2002)

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

**Methodology** Department of Natural Resources and Environment (2002)  
Government of Western Australia (2013)  
GIS Database:  
- IBRA WA (Regions - Sub Regions)  
- 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 permanent or semi-permanent water bodies or watercourses within the application area (GIS Database).

No vegetation associated with a watercourse or wetland was recorded within the application area during the flora and vegetation field survey (Biota, 2014).

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

**Methodology** Biota (2014)

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 may be at variance to this Principle**

The application area intersects the Littoral land system, which is characterised by bare coastal mudflats with mangroves on seaward fringes, samphire flats, sandy islands, coastal dunes and beaches (Van Vreeswyk et al., 2004). The Littoral landsystem is highly susceptible to wind erosion if plant cover is lost by fire or other disturbance (Van Vreeswyk et al., 2004).

The soil type within the application area is described as coastal plains mainly beyond marine flooding influence: main soils are pedal calcareous earths (GIS Database).

The potential impacts from erosion as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition.

Based on the above, the proposed clearing may be at variance to this Principle

**Methodology** Van Vreeswyk et al. (2004)  
GIS Database:  
- Pre-European Vegetation  
- Rangeland Systems Mapping  
- 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 does not lie within any conservation areas (GIS Database). The nearest conservation area is Mungaroona Range Nature Reserve, located approximately 122 kilometres south west of the application area (GIS Database). Given the distance between the application area and the Nature Reserve, the proposed clearing is not likely to impact the environmental values of any conservation area.

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

**Methodology** 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 is not likely to be at variance to this Principle**

The application area is not located within a Public Drinking Water Source Area (PDWSA) and there are no permanent or semi-permanent water bodies or watercourses within the application area (GIS Database).

Groundwater salinity within the application area is between 1,000 and 3,000 milligrams/Litre Total Dissolved Solids (TDS) (GIS Database). Given the relatively small scale of proposed clearing (6 hectares), the proposed development is unlikely to cause deterioration in the quality of surface or ground water.

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

**Methodology** GIS Database:  
- Groundwater Salinity, Statewide  
- 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 is not likely to be at variance to this Principle**

The climate of the Pilbara region is semi-arid, with a low average rainfall of approximately 200-300 millimetres per year (BoM, 2014). Drainage lines in the area are dry for most of the year, only flowing briefly immediately following significant rainfall (Biota, 2014).

There are no permanent or semi-permanent water bodies or watercourses within the application area (GIS Database). Therefore the proposed clearing is unlikely to increase the incidence or intensity of flooding.

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

**Methodology** Biota (2014)  
BoM (2014)  
GIS Database:  
- Hydrography, linear

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

##### Comments

There is one Native Title Claim (WC1999/003) over the area under application (GIS Database). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There 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, the Department of Water, and the Department of Parks and Wildlife, 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 15 December 2014 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the application.

**Methodology** GIS Database:  
- Aboriginal Sites of Significance  
- Native Title Claims, Determined by the Federal Court  
- Native Title Claims, Filed at the Federal Court  
- Native Title Claims, Registered with the NNTT

#### 4. References

- Biota (2014) Pickle Pond 9 Limestone Ridge Landform - Assessment of Conservation Significance. Report prepared by Biota Environmental Sciences for Dampier Salt Limited, Western Australia.
- BoM (2014). Bureau of Meteorology. Retrieved from <http://www.bom.gov.au> on 23 December 2014.
- 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.
- 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.
- Kendrick, P., and Stanley F, (2003). Pilbara 4 (PIL4 - Roebourne synopsis). A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management, Western Australia.
- Van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A., Hennig, P. (2004). An inventory and condition survey of the Pilbara Region, Western Australia, Technical Bulletin No. 92 Department of Agriculture Western Australia, South Perth.

#### 5. Glossary

##### Acronyms:

<b>BoM</b>	Bureau of Meteorology, Australian Government
<b>DAA</b>	Department of Aboriginal Affairs, Western Australia
<b>DAFWA</b>	Department of Agriculture and Food, Western Australia
<b>DEC</b>	Department of Environment and Conservation, Western Australia (now DPaW and DER)
<b>DER</b>	Department of Environment Regulation, Western Australia
<b>DMP</b>	Department of Mines and Petroleum, Western Australia
<b>DRF</b>	Declared Rare Flora
<b>DotE</b>	Department of the Environment, Australian Government
<b>DoW</b>	Department of Water, Western Australia
<b>DPaW</b>	Department of Parks and Wildlife, Western Australia
<b>DSEWPac</b>	Department of Sustainability, Environment, Water, Population and Communities (now DotE)
<b>EPA</b>	Environmental Protection Authority, Western Australia
<b>EP Act</b>	<i>Environmental Protection Act 1986</i> , Western Australia
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
<b>GIS</b>	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
PEC	Priority Ecological Community, Western Australia
RIWI Act	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
s.17	Section 17 of the <i>Environment Protection Act 1986</i> , Western Australia
TEC	Threatened Ecological Community

## Definitions:

{DPaW (2013) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

- T Threatened species:**  
Specially protected under the *Wildlife Conservation Act 1950*, listed under Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna or the Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).  
  
Threatened Fauna and Flora are further recognised by DPaW according to their level of threat using IUCN Red List criteria. For example Carnaby's Cockatoo *Calyptorhynchus latirostris* is specially protected under the *Wildlife Conservation Act 1950* as a threatened species with a ranking of Endangered.  
  
Rankings:  
CR: Critically Endangered - considered to be facing an extremely high risk of extinction in the wild.  
EN: Endangered - considered to be facing a very high risk of extinction in the wild.  
VU: Vulnerable - considered to be facing a high risk of extinction in the wild.
- X Presumed Extinct species:**  
Specially protected under the *Wildlife Conservation Act 1950*, listed under Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora (which may also be referred to as Declared Rare Flora).
- IA Migratory birds protected under an international agreement:**  
Specially protected under the *Wildlife Conservation Act 1950*, listed under Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice.  
Birds that are subject to an agreement between governments of Australia and Japan, China and The Republic of Korea relating to the protection of migratory birds and birds in danger of extinction.
- S Other specially protected fauna:**  
Specially protected under the *Wildlife Conservation Act 1950*, listed under Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- P1 Priority One - Poorly-known species:**  
Species that are known from one or a few collections or sight records (generally less than five), all on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, Shire, rail reserves and Main Roads WA road, gravel and soil reserves, and active mineral leases and under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes.
- P2 Priority Two - Poorly-known species:**  
Species that are known from one or a few collections or sight records, some of which are on lands not under imminent threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, unallocated Crown land, water reserves, etc. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes.
- P3 Priority Three - Poorly-known species:**  
Species that are known from collections or sight records from several localities not under imminent threat, or from few but widespread localities 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 localities but do not meet adequacy of survey requirements and known threatening processes exist that could affect them.
- P4 Priority Four - Rare, Near Threatened and other species in need of monitoring:**  
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.  
Near Threatened. Species that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable.  
Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.
- P5 Priority Five - Conservation Dependent species:**  
Species that are not threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.