



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 4743/4  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: **Louis William Rinaldi**

### 1.3. Property details

Property: Mining Lease 47/559  
Local Government Area: Shire of Roebourne  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
66.2		Mechanical Removal	Sand mining

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 17 September 2015

## 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 and are useful to look at vegetation in a regional context. Two Beard vegetation associations have been mapped within the application area:

**Beard vegetation association 127:** Bare areas; mud flats; and  
**Beard vegetation association 589:** Mosaic: Short bunch grassland - savanna / grass plain (Pilbara) / Hummock grasslands, grass steppe; soft spinifex.

Astron Environmental Services (2011) conducted a vegetation and flora survey of the application area and surrounding areas on 22 August 2011 and described nine broad vegetation communities within the application area:

**LSi1** – *Triodia epactia* hummock and *Cenchrus ciliaris* tussock closed grassland on sandy island. Some *Triodia angusta* around fringes of island;

**LSi2** – *Cenchrus ciliaris* tussock closed grassland on sandy island (previously burned);

**LSf1** – *Tecticornia halocnemoides* var sp1, *Tecticornia halocnemoides* var sp2 and *Tecticornia indica* var *leiostachya* over scattered to closed *Sporobolus virginicus* grassland;

**CSp1** – *Trianthema turgidifolia* open or scattered low shrubland over *Cenchrus ciliaris* tussock grassland with patchy *Triodia angusta*;

**CSp2** – *Chrysopogon fallax* closed grassland with small scalds of closed *Ptilotus murrayi* annual herbland;

**CSs1** – *Salsola tragus* annual scattered to open low shrubland over mixed annual herbland of *Swainsona pterostylis*, *Lepidium pholidogyium*, *Atriplex codoncarpa*, *Scleroleana bicornis*;

**LSf1** – *Tecticornia halocnemoides* var sp1, *Tecticornia halocnemoides* var sp2 and *Tecticornia indica* var *leiostachya* with occasional *Frankenia pauciflora* over scattered to closed *Sporobolus virginicus* grassland;

**RHs1** – *Acacia bivenosa* shrubland over *Triodia angusta* hummock grassland with annual herbland; and

**RHs2** *Acacia bivenosa*, *Senna pruinoso* scattered to open shrubland over *Triodia wiseana* hummock grassland.

**Clearing Description** Louis William Rinaldi proposes to extend the duration of the clearing permit until 30 June 2022, clear 66.2 hectares of native vegetation within a total boundary of approximately 68.804 hectares for the purpose of sand mining. The project is located approximately 7 kilometres east of Karratha, in the Shire of Roebourne.

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

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

#### Comment

Clearing permit CPS 4743/1 was granted by the Department of Mines and Petroleum on 12 April 2012. The clearing permit authorised the clearing of 7.2 hectares of native vegetation within a total boundary of 8.9 hectares. CPS 4743/1 was amended on 29 November 2012 to increase the area to be cleared to 11.2 hectares and the permit boundary to 31.5 hectares. CPS 4743/2 was amended on 31 July 2014 to increase the area to be cleared to 36.2 hectares, and increase the permit boundary to 56.47 hectares.

Louis William Rinaldi has applied to amend CPS 4743/3 to increase the area to be cleared from 36.2 hectares to 66.2 hectares, increase the permit boundary from 56.47 hectares to 66.8 hectares and remove the authorised clearing area under Miscellaneous Licence 47/514 from the permit.

### 3. Assessment of application against clearing principles

#### Comments

On 21 July 2015, L W Rinaldi applied to extend the duration of the permit until 30 June 2022, remove Miscellaneous Licence 47/514 from the permit, increase the area to be cleared from 36.2 hectares to 66.2 hectares, and increase the permit boundary from 56.47 hectares to 66.8 hectares for the purpose of sand mining. The amendment consists of an additional area to be cleared, and the removal of an access track from the permit.

The amended application boundary intersects four additional vegetation communities to those present within the previous permit area (Astron, 2011). The vegetation types are not considered to be of higher diversity than those assessed within clearing permit decision report CPS 4743/3, and the vegetation types are not considered to be remnant locally or regionally (Astron, 2011; GIS Database). According to available databases and flora survey results, there are no Threatened or Priority flora species, Priority Ecological Communities or Threatened Ecological Communities present within the application area (Astron, 2011; GIS Database). Vegetation within the amended application area is not considered to be riparian (Astron, 2011).

Astron (2011) and available databases (GIS Database), show four fauna habitats to exist within the amended application area:

1. Low sandy island;
2. Bare saline mudflat;
3. Low hill slope; and
4. Clay and sandy plains.

Aerial imagery over the application area and surrounds indicates that these fauna habitats are widespread within the region (GIS Database), and does not indicate the presence of any habitat features which may be important for habitat specific fauna (Astron, 2011; GIS Database). A search of the NatureMap database (DEC, 2015) did not return records for any conservation significant species which are likely to be dependent on the application area. The proposed clearing is unlikely to comprise significant fauna habitat (Astron, 2011; DEC, 2015; GIS Database).

Based on the above, the proposed clearing is not likely to be at variance to Principles (a), (b), (c), and (d).

The proposed clearing is situated within a saline mud flat west of the Nickol River mouth (Astron, 2011; 2012; GIS Database). However, the mudflat is only likely to become inundated following significant rainfall or cyclonic events, and the proponent has committed to maintaining a 5 to 10 metre buffer around the edge of the island to minimise the risk of flooding (Astron, 2012). During inundation events, a moderate level of sedimentation is likely to occur naturally. The proposed clearing is not likely to significantly increase sedimentation within tidal areas.

The amended application area intersects the Ruth, Littoral, Horseflat and Cheerawarra land systems (GIS Database). Of these, the Littoral, Cheerawarra and Horseflat land systems are considered to be moderately to highly susceptible to erosion if vegetation is cleared (Van Vreeswyk et al. 2004).

The amended application area remains within areas which have a moderate to high Acid Sulphate Soil risk (GIS Database). However, soil analysis indicates that the substrate is not likely to form acid on exposure to air (clearing permit decision report CPS 4743/2).

Based on the above, the proposed clearing may be at variance to Principle (g), and (j). It is recommended that a staged clearing condition be retained on the clearing permit to address erosion risk as a result of clearing vegetation.

Current environmental information has been reviewed and the assessment of clearing principles (e), (f), (h) and (i) is consistent with the assessment in clearing permit decision report CPS 4743/3.

**Methodology** Astron (2011)  
Astron (2012)  
DEC (2015)

Van Vreeswyk et al. (2004)

GIS Database:

- Acid Sulfate Soil Risk Map, Pilbara Coastline
- Imagery
- Pre-European Vegetation
- Rangeland Land System Mapping
- Threatened and Priority Flora
- Threatened Ecological Sites Buffered

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

### Comments

There is one Native Title claim (WC99/14) over the area under application (DAA, 2015). The claim WC99/14 was determined by the Federal Court on 2 May 2005. 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 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 amended application was advertised on 9 June 2014 by the Department of Mines and Petroleum inviting submissions from the public. There was one submission received advising of no objections.

**Methodology** DAA (2015)  
GIS Database:  
- Aboriginal Sites of Significance

## 4. References

- Astron Environmental Services (Astron) (2011) Nickol River Tenement M47/559 Vegetation and Flora Survey. Consultants report prepared for Louis Rinaldi, August 2011.
- Astron Environmental Services (Astron) (2012) Further information provided to the assessing officer for CPS 4743/2 on 12 March 2012.
- DAA (2015) Aboriginal Heritage Inquiry System, Government of Western Australia, Department of Aboriginal Affairs, Perth, <http://maps.dia.wa.gov.au/AHIS2/>, viewed 7 September 2015.
- DEC (2015) NatureMap: Mapping Western Australia's Biodiversity, Department of Environment and Conservation, <http://naturemap.dec.wa.gov.au/default.aspx>, viewed 25 August 2015.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, 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, Department of Agriculture, Western Australia.

## 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
<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>PEC</b>	Priority Ecological Community, Western Australia
<b>RIWI Act</b>	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
<b>s.17</b>	Section 17 of the <i>Environment Protection Act 1986</i> , Western Australia
<b>TEC</b>	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 the Department 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:**  
(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 do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable.  
(c) 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.