



Mr Geof Luff  
Managing Director  
Onslow Metals Pty Ltd  
PO Box 2086  
MALAGA WA 6944

Via email: [geof.luff@onslowmetals.com.au](mailto:geof.luff@onslowmetals.com.au)

Dear Mr Luff

**APPLICATION FOR A LICENCE UNDER THE ENVIRONMENTAL PROTECTION ACT 1986 –  
NOTICE OF DECISION TO GRANT**

I refer to your application for a licence received on 4 September 2017 relating to a category 12 prescribed premises for the Range Quarry Project.

As set out in our letter to you dated 7 November 2017, the Department of Water and Environmental Regulation considered your application in detail, including undertaking a detailed risk assessment, and provided a preliminary recommendation that I grant the sought under section 57 of the *Environmental Protection Act 1986* (EP Act). After considering the representations you provided on 13 November 2017, I have decided to grant the licence subject to the conditions in the attached instrument. The attached Decision Report sets out the reasons for my decision.

In accordance with section 102(1)(c) of the EP Act, if you are aggrieved by my decision to specify conditions in the licence you may lodge an appeal with the Minister for Environment in writing, setting out the grounds of that appeal, within 21 days of this notification. Should you wish to lodge an appeal, please contact the Office of the Appeals Convenor on 6567 5190 or by email at [admin@appealsconvenor.wa.gov.au](mailto:admin@appealsconvenor.wa.gov.au).

If you have any queries regarding the above information, please contact the Licensing Officer as listed above.

Yours sincerely

Alana Kidd  
MANAGER LICENSING – RESOURCE INDUSTRIES  
*Officer delegated under section 20  
of the Environmental Protection Act 1986*

14 November 2017

Att: Decision Report  
Final Instrument



## Application for Licence

### Division 3, Part V *Environmental Protection Act 1986*

---

<b>Licence Number</b>	L8640/2012/2
<b>Licence Holder</b>	Onslow Metals Pty Ltd
<b>ACN</b>	116 980 262
<b>File Number</b>	2012/002036
<b>Premises</b>	Range Quarry Project M08/272 CANE WA 6710
<b>Date of Report</b>	11 November 2017
<b>Status of Report</b>	Final

# Table of Contents

<b>1. Definitions of terms and acronyms</b>	<b>1</b>
<b>2. Purpose and scope of assessment</b>	<b>2</b>
2.1 Application details	3
<b>3. Overview of Premises</b>	<b>3</b>
3.1 Operational aspects	3
3.2 Infrastructure	5
3.3 Exclusions to the Premises	7
<b>4. Legislative context</b>	<b>7</b>
4.1 Part IV of the EP Act	7
4.2 Contaminated sites	7
4.3 Part V of the EP Act	8
4.3.1 Applicable regulations, standards and guidelines	8
4.3.2 Works approval and licence history	8
4.3.3 Compliance history	8
4.3.4 Clearing	9
<b>5. Consultation</b>	<b>9</b>
<b>6. Location and siting</b>	<b>9</b>
6.1 Siting context	9
6.2 Residential and sensitive Premises	11
6.3 Specified ecosystems	11
6.4 Groundwater and water sources	11
6.5 Soil type	12
6.6 Meteorology	12
<b>7. Risk assessment</b>	<b>13</b>
7.1 Determination of emission, pathway and receptor	13
7.2 Consequence and likelihood of risk events	16
7.3 Acceptability and treatment of Risk Event	17
7.4 Risk Assessment – Stormwater runoff	17
7.4.1 Description of Stormwater runoff	17
7.4.2 Description of potential adverse impact from the emission	17
7.4.3 Criteria for assessment	17
7.4.4 Licence Holder controls	17
7.4.5 Consequence	18
7.4.6 Likelihood of Risk Event	18
7.4.7 Overall rating of Stormwater runoff	18
7.5 Summary of acceptability and treatment of Risk Events	18

<b>8. Regulatory controls</b>	<b>19</b>
8.1 Licence controls	19
8.1.1 Stormwater runoff	19
<b>9. Determination of Licence conditions</b>	<b>19</b>
<b>10. Licence Holder’s comments</b>	<b>20</b>
<b>11. Conclusion</b>	<b>20</b>
<b>Appendix 1: Key documents</b>	<b>21</b>
<b>Attachment 1: Issued Licence L8640/2012/2</b>	<b>23</b>

Figure 1: Layout of the Plant	4
Figure 2: Site layout	6
Figure 3: Regional location of the Premises	10

Table 1: Definitions	1
Table 2: Prescribed Premises Category and proposed design capacity change	3
Table 3: Documents and information submitted during the assessment process	3
Table 4: Premises infrastructure	5
Table 5: Relevant approvals and tenure	7
Table 6: Works approval and licence history	8
Table 7: Compliance history	8
Table 8: Receptors and distance from activity boundary	11
Table 9: Environmental values	11
Table 10: Groundwater and water sources	12
Table 11: Soil and sub-soil characteristics	12
Table 12: Identification of emissions, pathway and receptors during operation	13
Table 13: Risk rating matrix	16
Table 14: Risk criteria table	16
Table 15: Risk treatment table	17
Table 16: Licence Holder’s controls for stormwater runoff	18
Table 17: Risk assessment summary	19
Table 18: Summary of conditions to be applied	20

# 1. Definitions of terms and acronyms

In this Decision Report, the terms in Table 1 have the meanings defined.

**Table 1: Definitions**

Term	Definition
ACN	Australian Company Number
Annual Period	means a 12 month period commencing from 1 January until 31 December
Category/ Categories/ Cat.	Categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
DBCA	Department of Biodiversity, Conservation and Attractions As of 1 July 2017, the Department of Parks and Wildlife, Botanical Gardens and Parks Authority, Zoological Parks Authority and Rottnest Island Authority amalgamated to form the Department of Biodiversity, Conservation and Attractions (DBCA)
Decision Report	refers to this document
Delegated Officer	an officer under section 20 of the EP Act
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act
DMIRS	Department of Mines, Industry Regulation and Safety As of 1 July 2017, the Department of Mines and Petroleum (DMP) and the Department of Commerce amalgamated to form the Department of Mines, Industry Regulation and Safety (DMIRS)
DMP	Department of Mines and Petroleum
DWER	Department of Water and Environmental Regulation As of 1 July 2017, the Department of Environment Regulation (DER), the Office of the Environmental Protection Authority (OEPA) and the Department of Water (DoW) amalgamated to form the Department of Water and Environmental Regulation (DWER)  DWER was established under section 35 of the <i>Public Sector Management Act 1994</i> and is responsible for the administration of the <i>Environmental Protection Act 1986</i> along with other legislation
EPA	Environmental Protection Authority
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>

Term	Definition
Existing Licence	The Licence issued under Part V, Division 3 of the EP Act and in force prior to the commencement of, and during this Review
HDPE	High density polyethylene
Issued Licence	The Licence issued under Part V, Division 3 of the EP Act following the finalisation of this Review
Licence Holder	Onslow Metals Pty Ltd
Noise Regulations	<i>Environmental Protection (Noise) Regulations 1997 (WA)</i>
Occupier	has the same meaning given to that term under the EP Act
Prescribed Premises	has the same meaning given to that term under the EP Act
Premises	refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report
Primary Activities	as defined in Schedule 2 of the Issued Licence
Review	this Licence review
Risk Event	As described in <i>Guidance Statement: Risk Assessments</i>
ROM	Run of Mine
UDR	<i>Environmental Protection (Unauthorised Discharges) Regulations 2004 (WA)</i>

## 2. Purpose and scope of assessment

On 4 September 2017 Onslow Metals Pty Ltd (Licence Holder) applied to the Department of Water and Environmental Regulation (DWER) to renew the Range Quarry Project (Premises) licence. The Premises is currently licensed under Existing Licence L8640/2012/1 for a crushing and screening facility - Category 12 under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations), which is due to expire on 18 November 2017.

The Existing Licence, which authorises the crushing and screening of up to 1,000,000 tonnes per year of basalt rock, has been held by the Licence Holder since it was issued on 15 November 2012.

The Licence Holder has advised that there will be no change to the operational practices and/or infrastructure at the Premises.

The design capacity for Category 12 has been increased under the Issued Licence from 1,000,000 tonnes per year to 1,095,000 tonnes per year as shown in Table 2. This increase reflects the actual design capacity of the crushing and screening plant (250 tonnes per hour, 12 hours per day, 365 days per year).

**Table 2: Prescribed Premises Category and proposed design capacity change**

Classification of Premises	Description	Existing Licence approved Premises production or design capacity or throughput	Proposed Premises production or design capacity or throughput
Category 12	Screening, etc. of material: premises (other than premises within category 5 or 8) on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated.	1,000,000 tonnes per year	1,095,000 tonnes per annual period

The Issued Licence represents a continuation of existing practices, with the Premises life span expected to continue for another six years. This Decision Report assesses the emissions and discharges associated with the continued operation of the Premises. This assessment has resulted in DWER issuing Licence L8640/2012/2 (Issued Licence) which is contained in Attachment 1.

## 2.1 Application details

Table 3 lists the documents submitted during the assessment process.

**Table 3: Documents and information submitted during the assessment process**

Document/information description	Date received
Range Quarry Project operating licence renewal application email, containing: <ul style="list-style-type: none"> <li>• Completed and signed Operating Licence Renewal application form;</li> <li>• Attachment 1A – Mining tenement summary report;</li> <li>• Attachment 1B – ASIC summary;</li> <li>• Attachment 2 – Prescribed premises map/site plan;</li> <li>• Attachment 3A - Proposed activities summary;</li> <li>• Attachment 4 – Summary of consultation;</li> <li>• Attachment 6A – Emissions/discharges;</li> <li>• Attachment 7 – Siting; and</li> <li>• Attachment 9 – Licence fee calculation.</li> </ul>	4 September 2017

## 3. Overview of Premises

### 3.1 Operational aspects

The crushing and screening plant (the Plant) can process up to 250 tonnes per hour of material. This equates to 1,095,000 tonnes per year based on the Premises operational hours, which are 12 hours per day 7 days per week. The product from the Premises is used to supply rock armour, stone and crushed rock materials for use in projects including Liquefied Natural Gas (LNG) facilities, road construction and concrete material.

The Plant consists of crushers, screening plant, loaders and conveyors as shown in Figure 1. The Licence Holder has stated (Application, 2017a) that there will be no changes in process plant type, size, footprint or throughput. The Licence Holder has undertaken all mining and plant operations on site since 2014, with these previously done by contractors.



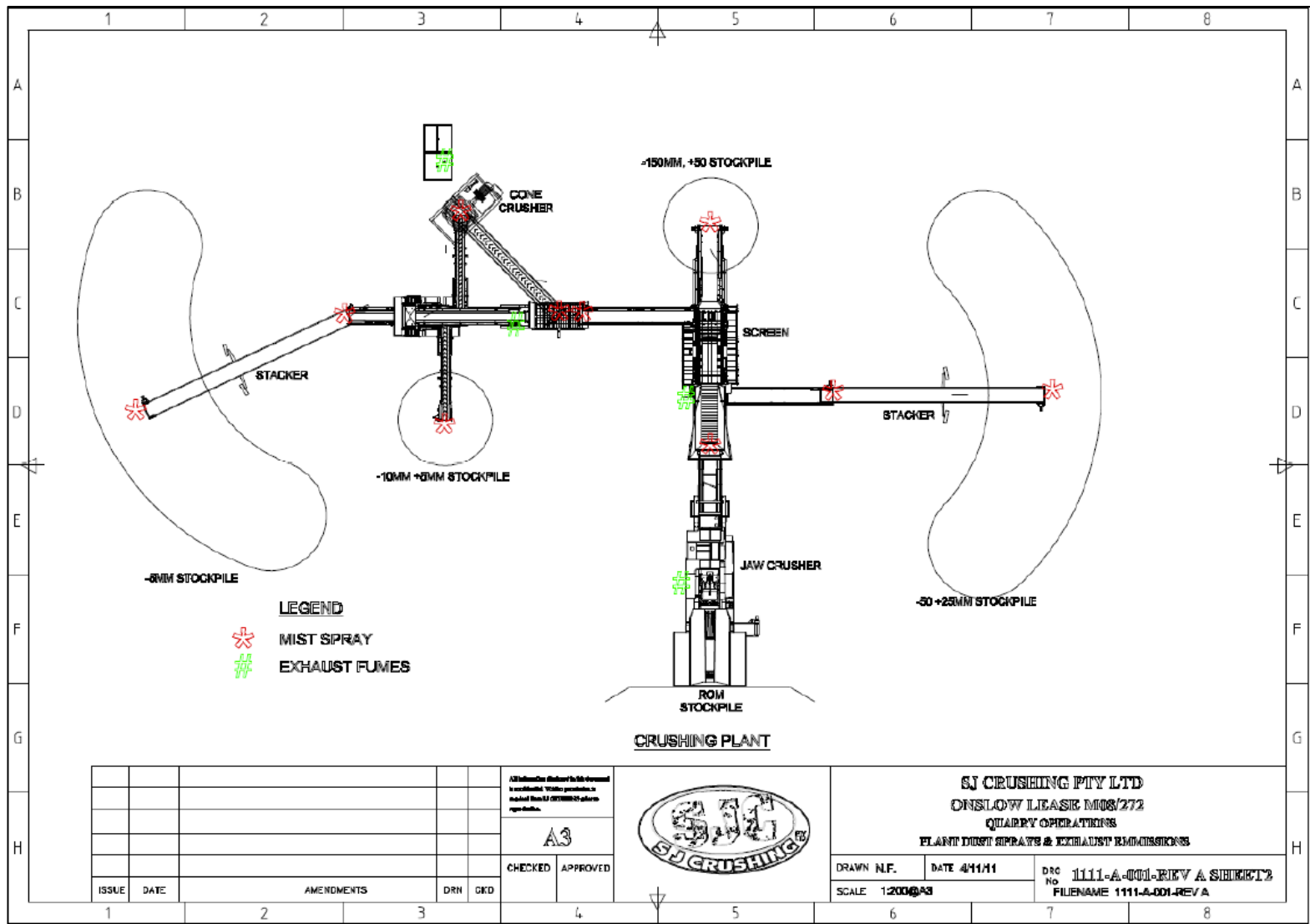


Figure 1: Layout of the Plant

An oily water separator is located at the washdown bay to remove hydrocarbons from washdown water. The treated 'clean' water is then re-used onsite, while the oily water is collected and removed off-site for disposal.

Site water requirements are provided from Onslow, with a 13 kilolitres mobile water tank stored onsite. All waste generated onsite is removed off-site for disposal to the Shire of Ashburton landfill.

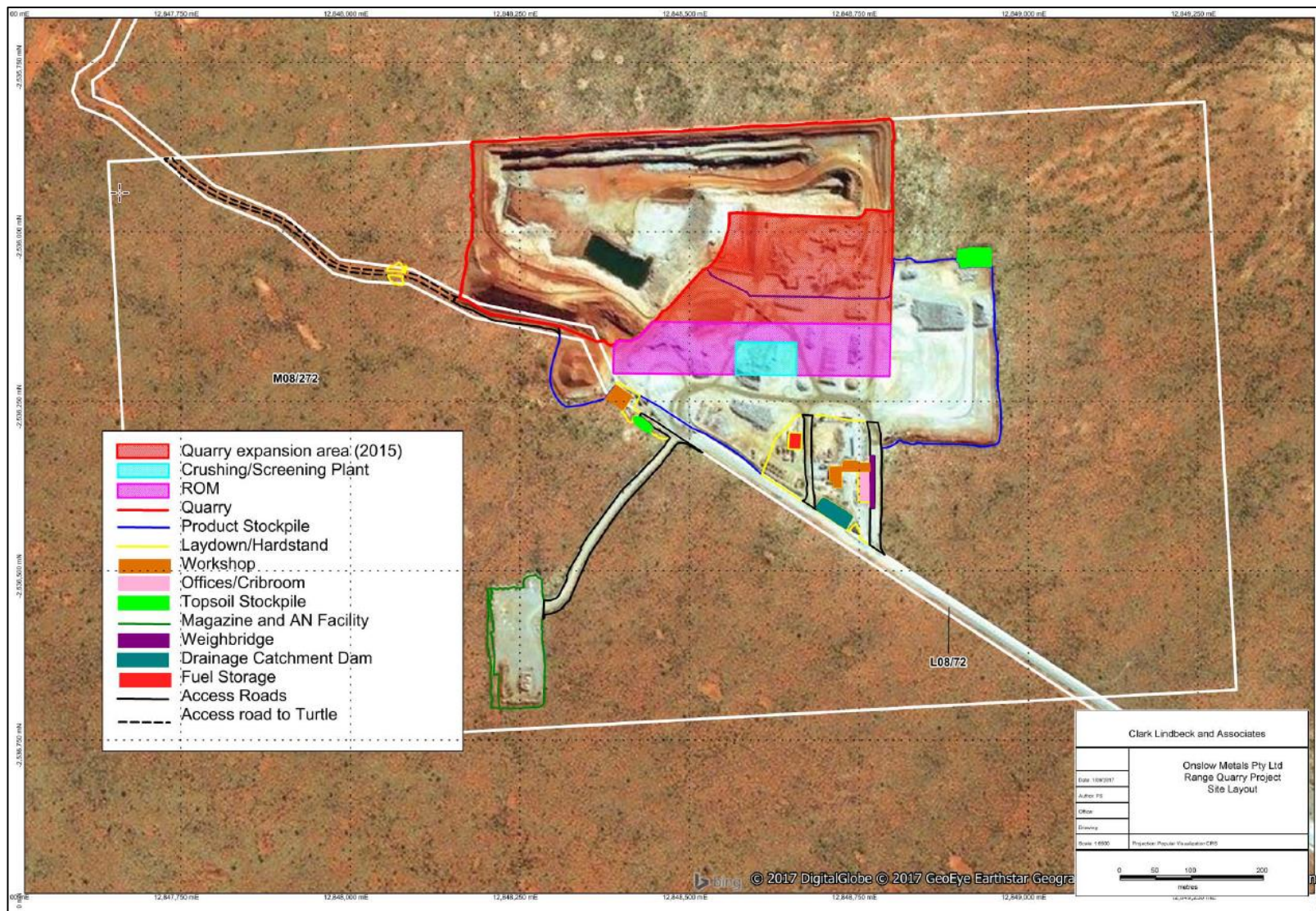
Emissions likely to arise from the operations at the Premises are noise, dust and potentially contaminated stormwater runoff.

### 3.2 Infrastructure

The Premises infrastructure, as it relates to Category 12 activities, is detailed in Table 4 with reference to Figures 1 and 2.

**Table 4: Premises infrastructure**

	Infrastructure	Site Plan Reference
	<b>Prescribed Activity Category 12</b>	
1	Run of Mine (ROM) pad	Figure 2.
2	Primary jaw crusher	Figure 1
3	Secondary cone crusher	
4	Screening plant	
5	Recirculation cone crusher	
6	Conveyors and loaders	
7	Stockpiles	
8	Fuel storage	Figure 2
9	Drainage Catchment Dam	
10	Portable rip rap plant (located on site dependent on product requirements)	Within the ROM pad, as shown on Figure 2
	<b>Directly related activities</b>	
1	Workshop and offices	Figure 2
2	Quarry	
3	Magazine and explosives storage	



**Figure 2: Site layout**

### 3.3 Exclusions to the Premises

The following activities occur at the Premises, but are not included in the scope of this assessment:

- Extractive processes i.e. quarrying. This activity is not regulated by DWER.
- Explosives are stored in a secured magazine and ammonium nitrate facility. Dangerous goods are stored in a Dangerous Goods cabinet in accordance with Australian Standards. The use and storage of explosives and dangerous goods are regulated by DMIRS.
- Fuel is stored in self-bunded 55 kL tank and a custom built containerised 68,000 litre fuel tank. The capacity of fuel storage onsite is below the category 73 threshold under Schedule 1 of the EP Regulations. The Licence Holder should note that the general provisions of the *Environmental Protection Act 1986* (EP Act) and *Environmental Protection (Unauthorised Discharges) Regulations 2004* apply, as does the *Dangerous Goods Safety Act 2004* and associated Regulations. The Licence Holder has stated that hydrocarbons (including oils and greases) are stored in bunded containers in accordance with Australian Standard AS1940:2004 *The storage and handling of flammable and combustible liquids*.
- Power supply is via a self bunded 325 kilo-volt-ampere diesel generator. This activity is not regulated by DWER as it does not trigger category 52 or 84 within Schedule 1 of the EP Regulations.
- A wastewater treatment plant (WWTP) operates at the Premises and treats up to 3,500 litres per day. Treated effluent is reused onsite in vehicle washdown (Application, 2017b). The capacity of WWTP is below the category 85 and 54 thresholds under Schedule 1 of the EP Regulations and acceptance and disposal of sewage is regulated by the Department of Health.

## 4. Legislative context

Table 5 summarises approvals relevant to the assessment.

**Table 5: Relevant approvals and tenure**

Legislation	Details	Approval Reference
<i>Mining Act 1978</i>	Onslow Metals Pty Ltd Range Quarry Project Expansion Mining Proposal Addendum M08/272 and L08/72.	Registration ID 55292.

### 4.1 Part IV of the EP Act

The Licence Holder has advised that the Premises has not been referred to the Environmental Protection Authority (EPA) for Assessment under Part IV of the EP Act as the Premises is not considered to have a significant impact on the environment and does not trigger one or more of the criteria within the Memorandum of Understanding between DMIRS and the EPA.

### 4.2 Contaminated sites

The Premises is not listed on the Contaminated Sites register.

## 4.3 Part V of the EP Act

### 4.3.1 Applicable regulations, standards and guidelines

The overarching legislative framework of this assessment is the EP Act and EP Regulations.

The guidance statements which inform this assessment are:

- *Guidance Statement: Regulatory Principles (July 2015);*
- *Guidance Statement: Setting Conditions (October 2015);*
- *Guidance Statement: Licence Duration (August 2016);*
- *Guidance Statement: Environmental Siting (November 2016);*
- *Guidance Statement: Decision Making (February 2017);* and
- *Guidance Statement: Risk Assessments (February 2017).*

### 4.3.2 Works approval and licence history

Table 6 summarises the works approval and licence history for the Premises.

**Table 6: Works approval and licence history**

Instrument	Issued	Nature and extent of works approval, licence or amendment
W5136/2012/1	10 May 2012	Works approval application for the construction of a crushing and screening plant (Category 12) and associated infrastructure.
W5136/2012/1	20 September 2012	Works approval amendment for a change in location of infrastructure.
L8640/2012/1	15 November 2012	Licence for the operation of the crushing and screening plant (Category 12) for the Range Quarry Project.

### 4.3.3 Compliance history

Two non-compliances have been recorded on DWER's Incidents and Complaints Management System (ICMS) for the Licence Holder, with both being closed out. The details are shown in Table 7.

**Table 7: Compliance history**

ICMS Number	Date of Event	Issue	Outcome
27631	20/02/2013	A compliance inspection undertaken by the former Department of Mines and Petroleum (DMP) on 30/01/2013 found compliance issues with the mining proposal.  DMP's report was forwarded to the former Department of Environment and Conservation (DEC) on 20/02/2013.	The compliance issues raised were being investigated by DMP.  The former Department of Environment Regulation (DER) undertook a compliance inspection of the Premises on 11/06/2013. The inspection did not identify any compliance issues and this compliance activity was closed.
32421	14/11/2013	Information provided by the Licence Holder showed a processing cumulative total of 1,424,152.72 tonnes of material for the period November 2012 to October 2013, which is above the Category 12 licence limit is 1,000,000 tonnes per year.	Correspondence on behalf of the Licence Holder stated that there had been a misunderstanding of the throughput (reported quantity related to sales and not throughput) and that the throughput of the plant for the period

			<p>July 2012 to June 2013 was 314,000 tonnes with approximately 70,000 tonnes in the product stockpile.</p> <p>The non-compliance was closed as it was not confirmed that the Licence Holder had exceeded the limit and that it was not a licence condition.</p>
--	--	--	--

#### 4.3.4 Clearing

The clearing of native vegetation is not approved under the Issued Licence.

## 5. Consultation

The application was advertised for public comment on 16 October 2017. A letter inviting comment was sent to the Shire of Ashburton on 11 October 2017. No comments were received.

A letter of referral was sent to the Department of Biodiversity, Conservation and Attractions (DBCA) on 1 November 2017. DBCA provided comments on 9 November 2017 (DBCA, 2017) stating that “*The department notes that issues with hydrocarbons, including spillage, insufficient cleanup, and inappropriate storage have been noted in the past, and therefore requests that consideration is given to incorporating conditions in the renewed licence that minimise the risk and potential impacts of hydrocarbon use and storage, and maximise certainty that best practice hydrocarbon management measures are implemented*”.

DWER has considered the above comment and provides that the storage and handling of chemicals is regulated by the following legislation:

- *Dangerous Goods Safety Act 2004* and associated Regulations;
- The general provisions of the EP Act apply with respect to the causing of pollution and environmental harm; and
- Discharges of hydrocarbons are subject to the *Environmental Protection (Unauthorised Discharges) Regulations 2004*.

The Delegated Officer considers the above legislation adequate to address the storage and use of hydrocarbons (including breaches and spills of containment) within the Premises. Refer also to Table 12 (section 7.1).

## 6. Location and siting

### 6.1 Siting context

The Premises is located 80 kilometres (km) south-east of Onslow and 10 km west of the North West Coastal Highway in the Pilbara region of Western Australia as shown in Figure 3.

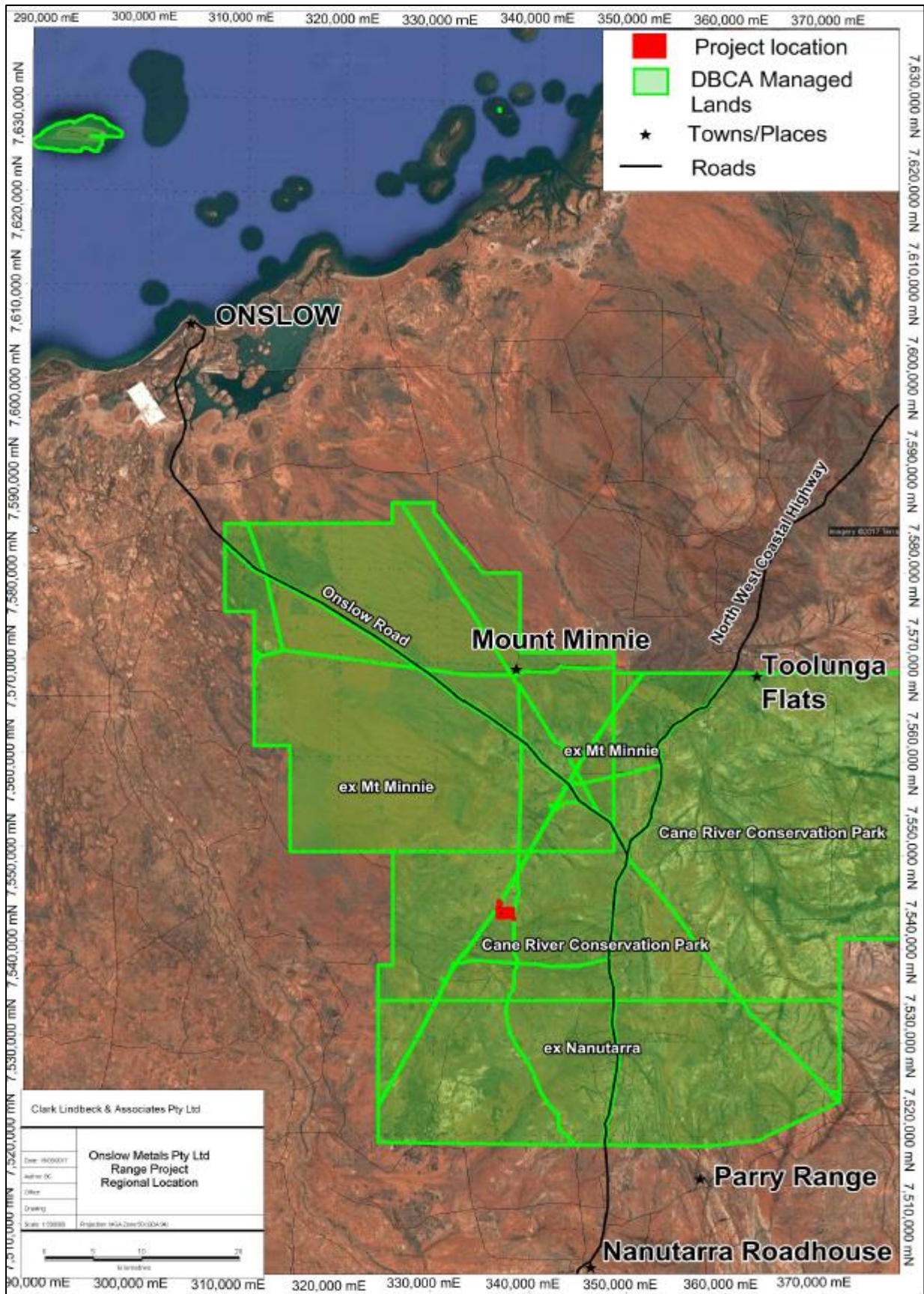


Figure 3: Regional location of the Premises

## 6.2 Residential and sensitive Premises

The distances to residential and sensitive receptors are detailed in Table 8.

**Table 8: Receptors and distance from activity boundary**

Sensitive Land Uses	Distance from Prescribed Activity
Nanutarra Roadhouse	37 km south of the Premises.

## 6.3 Specified ecosystems

Specified ecosystems are areas of high conservation value and special significance that may be impacted as a result of activities or Emissions and Discharges from the Premises. The distances to specified ecosystems are shown in Table 9. Table 9 also identifies the distances to other relevant ecosystem values which do not fit the definition of a specified ecosystem.

The table has also been modified to align with the *Guidance Statement: Environmental Siting*.

**Table 9: Environmental values**

Specified ecosystems	Distance from the Premises
Ramsar Sites in Western Australia	There are no Ramsar Sites within 100 km of the Premises.
DBCA Managed Lands and Waters	The Premises lies within the Cane River Conservation Park. Two former leaseholds that are proposed for conservation (ex Mt Minnie and ex Nanutarra) are located approximately 6 km to the north and 9 km to the south of the Premises respectively.
Threatened Ecological Communities and Priority Ecological Communities	There are no Threatened Ecological Communities or Priority Ecological Communities within or in a 30 km radius of the Premises.
Declared Rare Flora	There are no Declared Rare Flora within or in a 30 km radius of the Premises.
Biological component	Distance from the Premises
Threatened/Priority Flora	The Application, 2017a states that the Priority 1 <i>Helichrysum oligochaetum</i> and Priority 3 <i>Eromophila forrestii</i> subsp. <i>Viridi</i> are located within 5 km and 10 km respectively of the Premises.
Threatened/Priority Fauna	The Application, 2017a states that one species of conservation significance (Grey Falcon <i>Falco hypoleucos</i> ) has been recorded within 10 km of the Premises. This was recorded in 1995 and is listed as rare or likely to be extinct.

## 6.4 Groundwater and water sources

The distances to groundwater and water sources are shown in Table 10.



**Table 10: Groundwater and water sources**

Groundwater and water sources	Distance from Premises	Environmental value
Public Drinking Water Source Areas (PDWSA)	The Priority 1 Cane River Water Reserve is approximately 48 km to the north of the Premises.	Water used for potable purposes.
Major watercourses/waterbodies	The Ashburton River lies 23 km south-west and the Cane River is 27 km east of the Premises  There are no rivers, lakes or significant water bodies within the Premises.	No identified significance, consistent with the <i>Guidance Statement: Environmental Siting</i> .
<i>Rights in Water and Irrigation Act 1914</i>	The Premises is located within the Proclaimed Pilbara Groundwater and Surface Water Areas.	N/A.
Groundwater and groundwater salinity	Groundwater is 30 metres (m) below ground level (bgl).  No bores are located within 1 km of the Premises (based on available GIS dataset – WIN Groundwater Sites).	Groundwater salinity (Total Dissolved Solids (TDS)) is 1,000 – 3,000 mg/L which is considered brackish (Salinity status classifications).

## 6.5 Soil type

Table 11 details soil types and characteristics relevant to the assessment.

**Table 11: Soil and sub-soil characteristics**

Classification	Characteristics	Environmental Value
Soil type classification	DWER's GIS dataset identifies the soil types within the Premises as gently undulating pediplains extending out from breakaways capped by Robe pisolite deposits and other related formations. There may be a few small flat-topped residuals rising above the pediplains. Chief soils are hard alkaline red soils (Dr2.33). Small areas of (Um5.11) soils may be associated with occasional patches of calcrete (kunkar). Minor soil occurrences include (Uf6.71), (Ug5.37), (Gn2.13), and stony (Gn2.12) soils (Northcote, 1960-68).	No identified significance, consistent with the <i>Guidance Statement: Environmental Siting</i> .
Acid sulfate soil risk	DWERs GIS dataset indicates that the Premises is not within an acid sulfate soil risk area.	No identified significance, consistent with the <i>Guidance Statement: Environmental Siting</i> .

## 6.6 Meteorology

The nearest Bureau of Meteorology (BoM) station is at Onslow airport, 70 km north-west of the Premises. Average annual rainfall there is 315.1 millimetres (mm), mainly occurring in the summer months of January to March, where monthly rainfall varies between 39.0 to 72.9 mm, however, the months of May and June also show average rainfall of 49.0 mm and 45.5 mm respectively. Average maximum temperature varies between a low of 25.4 in July to a high of 36.4 in January.

## 7. Risk assessment

### 7.1 Determination of emission, pathway and receptor

In undertaking its risk assessment, DWER will identify all potential emissions pathways and potential receptors to establish whether there is a Risk Event which requires detailed risk assessment.

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission. Where there is no actual or likely pathway and/or no receptor, the emission will be screened out and will not be considered as a Risk Event. In addition, where an emission has an actual or likely pathway and a receptor which may be adversely impacted, but that emission is regulated through other mechanisms such as Part IV of the EP Act, that emission will not be risk assessed further and will be screened out through Table 12.

The identification of the sources, pathways and receptors to determine Risk Events are set out in Table 12 below.

**Table 12: Identification of emissions, pathway and receptors during operation**

Risk Events					Continue to detailed risk assessment	Reasoning	
Sources/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts			
<b>Screening, etc. of material</b>	Operation of the Plant, movement of material, stockpiles and loading onto vehicles  Vehicle movement	Dust associated with crushing and screening activities including conveyors, stockpiles and loading of material  Vehicle movements on unsealed access roads  Cleared areas	Sensitive receptors, flora and fauna	Air / wind dispersion	Human health and amenity impacts  Potential suppression of photosynthetic and respiratory functions of biota	No	No sensitive receptors within 37 km of the Premises.  The Delegated Officer considers the natural dust tolerance of vegetation species should prevent vegetation impacts. There are also no Declared Rare Flora, Threatened Ecological Communities or Priority Ecological Communities within or in a 30 km radius of the Premises.  The Licence Holder has implemented the following controls at the Premises: <ul style="list-style-type: none"> <li>• Water mist sprays on the crushing circuit;</li> <li>• Speed limit restrictions and minimisation of unnecessary movement of vehicles;</li> </ul>

Risk Events					Continue to detailed risk assessment	Reasoning	
Sources/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts			
						<ul style="list-style-type: none"> <li>Restriction of access to existing tracks; and</li> <li>Use of water on haul roads and stockpiles.</li> </ul> <p>The Delegated Officer considers that the provisions of section 49 of the EP Act are sufficient to regulate dust emissions associated with the operation of the Plant.</p>	
		Noise associated with crushing and screening activities	Sensitive receptors	Air / wind dispersion	Amenity impacts	No	<p>No sensitive receptors within 37 km of the Premises.</p> <p>The Delegated Officer considers the provisions of the <i>Environmental Protection (Noise) Regulations 1997</i> sufficient to regulate noise emissions associated with the operation of the Plant.</p>
		Contaminated stormwater runoff	Soil and surface water drainage	Stormwater runoff from cleared and operational areas Direct discharges to land, which could potentially lead to discharges to surface water and groundwater	Soil contamination inhibiting vegetation growth and survival and health impacts to fauna Sedimentation of surface water systems	Yes – Refer to section 7.4	Stormwater runoff
	Storage and use of hydrocarbons	Spills and breach of containment	Soil and vegetation adjacent to area of spill or breach	Direct discharges to land	Soil contamination inhibiting vegetation growth and survival and health impacts to fauna	No	<p>The Licence Holder has implemented the following controls:</p> <ul style="list-style-type: none"> <li>Fuel is stored in a self-bunded tank, with a bunded refuelling apron to contain potential spills;</li> </ul>

Risk Events					Continue to detailed risk assessment	Reasoning
Sources/Activities		Potential emissions	Potential receptors	Potential pathway		
						<ul style="list-style-type: none"> <li>Oils and greases are stored in self-bunded containers;</li> <li>An oily water separator is located at the washdown bay (next to the washdown pad) which removes hydrocarbons contaminating the washdown water. The "clean" water is then re-used through the washdown bay; and</li> <li>Spill equipment is maintained on the Premises.</li> </ul> <p>The Delegated Officer considers that the storage and handling of chemicals is adequately regulated by the <i>Dangerous Goods Safety Act 2004</i> and associated Regulations and that the general provisions of the EP Act with respect to the causing of pollution and environmental harm apply, and discharges of hydrocarbons may be subject to the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>.</p>

## 7.2 Consequence and likelihood of risk events

A risk rating will be determined for risk events in accordance with the risk rating matrix set out in Table 13 below.

**Table 13: Risk rating matrix**

Likelihood	Consequence				
	Slight	Minor	Moderate	Major	Severe
Almost certain	Medium	High	High	Extreme	Extreme
Likely	Medium	Medium	High	High	Extreme
Possible	Low	Medium	Medium	High	Extreme
Unlikely	Low	Medium	Medium	Medium	High
Rare	Low	Low	Medium	Medium	High

DWER will undertake an assessment of the consequence and likelihood of the Risk Event in accordance with Table 14 below.

**Table 14: Risk criteria table**

Likelihood		Consequence		
The following criteria has been used to determine the likelihood of the Risk Event occurring.		The following criteria has been used to determine the consequences of a Risk Event occurring:		
		Environment	Public health* and amenity (such as air and water quality, noise, and odour)	
Almost Certain	The risk event is expected to occur in most circumstances	Severe	<ul style="list-style-type: none"> <li>onsite impacts: catastrophic</li> <li>offsite impacts local scale: high level or above</li> <li>offsite impacts wider scale: mid-level or above</li> <li>Mid to long-term or permanent impact to an area of high conservation value or special significance<sup>^</sup></li> <li>Specific Consequence Criteria (for environment) are significantly exceeded</li> </ul>	<ul style="list-style-type: none"> <li>Loss of life</li> <li>Adverse health effects: high level or ongoing medical treatment</li> <li>Specific Consequence Criteria (for public health) are significantly exceeded</li> <li>Local scale impacts: permanent loss of amenity</li> </ul>
Likely	The risk event will probably occur in most circumstances	Major	<ul style="list-style-type: none"> <li>onsite impacts: high level</li> <li>offsite impacts local scale: mid-level</li> <li>offsite impacts wider scale: low level</li> <li>Short-term impact to an area of high conservation value or special significance<sup>^</sup></li> <li>Specific Consequence Criteria (for environment) are exceeded</li> </ul>	<ul style="list-style-type: none"> <li>Adverse health effects: mid-level or frequent medical treatment</li> <li>Specific Consequence Criteria (for public health) are exceeded</li> <li>Local scale impacts: high level impact to amenity</li> </ul>
Possible	The risk event could occur at some time	Moderate	<ul style="list-style-type: none"> <li>onsite impacts: mid-level</li> <li>offsite impacts local scale: low level</li> <li>offsite impacts wider scale: minimal</li> <li>Specific Consequence Criteria (for environment) are at risk of not being met</li> </ul>	<ul style="list-style-type: none"> <li>Adverse health effects: low level or occasional medical treatment</li> <li>Specific Consequence Criteria (for public health) are at risk of not being met</li> <li>Local scale impacts: mid-level impact to amenity</li> </ul>
Unlikely	The risk event will probably not occur in most circumstances	Minor	<ul style="list-style-type: none"> <li>onsite impacts: low level</li> <li>offsite impacts local scale: minimal</li> <li>offsite impacts wider scale: not detectable</li> <li>Specific Consequence Criteria (for environment) likely to be met</li> </ul>	<ul style="list-style-type: none"> <li>Specific Consequence Criteria (for public health) are likely to be met</li> <li>Local scale impacts: low level impact to amenity</li> </ul>
Rare	The risk event may only occur in exceptional circumstances	Slight	<ul style="list-style-type: none"> <li>onsite impact: minimal</li> <li>Specific Consequence Criteria (for environment) met</li> </ul>	<ul style="list-style-type: none"> <li>Local scale: minimal to amenity</li> <li>Specific Consequence Criteria (for public health) met</li> </ul>

<sup>^</sup> Determination of areas of high conservation value or special significance should be informed by the *Guidance Statement: Environmental Siting*.

\* In applying public health criteria, DWER may have regard to the Department of Health's *Health Risk Assessment (Scoping) Guidelines*.

"onsite" means within the Prescribed Premises boundary.

### 7.3 Acceptability and treatment of Risk Event

DWER will determine the acceptability and treatment of Risk Events in accordance with Table 15 below:

**Table 15: Risk treatment table**

Rating of Risk Event	Acceptability	Treatment
<b>Extreme</b>	Unacceptable.	Risk Event will not be tolerated. DWER may refuse application.
<b>High</b>	May be acceptable. Subject to multiple regulatory controls.	Risk Event may be tolerated and may be subject to multiple regulatory controls. This may include both outcome-based and management conditions.
<b>Medium</b>	Acceptable, generally subject to regulatory controls.	Risk Event is tolerable and is likely to be subject to some regulatory controls. A preference for outcome-based conditions where practical and appropriate will be applied.
<b>Low</b>	Acceptable, generally not controlled.	Risk Event is acceptable and will generally not be subject to regulatory controls.

### 7.4 Risk Assessment – Stormwater runoff

#### 7.4.1 Description of Stormwater runoff

Stormwater at the Premises has the potential to become contaminated with sediments from operational areas (the Plant area), as well as heavy metals, metalloids, hazardous chemicals and hydrocarbons from spills and leaks at the workshops, washdown bays and refuelling areas.

#### 7.4.2 Description of potential adverse impact from the emission

Infiltration through soil of chemicals, fine sediments and hydrocarbons from contaminated stormwater runoff may inhibit vegetation growth and survival and impact terrestrial and surface water ecosystems.

#### 7.4.3 Criteria for assessment

ANZECC and ARMCANZ, 2000 provide recommended trigger values for freshwater quality and *Assessment and management of contaminated sites* and ASC NEPM provides ecological and human health assessment levels for soil.

#### 7.4.4 Licence Holder controls

This assessment has reviewed the controls set out in Table 16 below.

**Table 16: Licence Holder’s controls for stormwater runoff**

Controls for stormwater runoff	
Site infrastructure	Description
The Plant area	<ul style="list-style-type: none"> <li>All surface water runoff in the Plant area is directed to a high density polyethylene (HDPE) lined pond (Drainage Catchment Dam), which is positioned at the lowest level of the Premises to capture and store stormwater runoff. The water is then re-used on the Premises for dust suppression or in the Plant; and</li> <li>Regular inspections are undertaken of the Drainage Catchment Dam to ensure an adequate freeboard is maintained.</li> </ul>
Washdown bay	<ul style="list-style-type: none"> <li>An oily water separator treats waste generated at the washdown bay, achieving a total petroleum hydrocarbon level of less than 10 mg/L, which is then discharged to the Drainage Catchment Dam.</li> </ul>

#### 7.4.5 Consequence

If potentially contaminated stormwater runoff was to infiltrate the soil profile and/or water within the Drainage Catchment Dam was to overflow, then the Delegated Officer has determined that the impacts to vegetation, surface water and groundwater will result in low level off-site impacts at a local scale. Therefore, the Delegated Officer considers the consequence to be **moderate**.

#### 7.4.6 Likelihood of Risk Event

The Delegated Officer has considered the location of the Premises within the Cane River Conservation Park and Licence Holder controls and has determined that the likelihood of stormwater runoff and/or Drainage Catchment Dam overflowing resulting in impacts on vegetation, surface water and groundwater will probably not occur in most circumstances. Therefore, the Delegated Officer considers the likelihood to be **unlikely**.

#### 7.4.7 Overall rating of Stormwater runoff

The Delegated Officer has compared the consequence and likelihood ratings described above with the risk rating matrix (Table 13) and determined that the overall rating for the risk of stormwater runoff is **medium**, subject to regulatory control.

### 7.5 Summary of acceptability and treatment of Risk Events

A summary of the risk assessment and the acceptability or unacceptability of the risk events set out above, with the appropriate treatment and control, are set out in Table 17 below. Controls are described further in section 8.

**Table 17: Risk assessment summary**

	Description of Risk Event			Licence Holder controls	Risk rating	Acceptability with controls (conditions on instrument)
	Emission	Source	Pathway/ Receptor (Impact)			
1.	Stormwater runoff	Crushing and screening areas Workshops and refuelling areas Stormwater runoff Infrastructure drainage	Stormwater runoff from operational areas potentially causing soil contamination and sedimentation within surface water systems	Infrastructure drainage Drainage Catchment Dam – HDPE lined and freeboard maintained	Moderate consequence Unlikely likelihood <b>Medium Risk</b>	Acceptable subject to regulatory controls

## 8. Regulatory controls

A summary of regulatory controls determined to be appropriate for the Risk Event follows in this section. Controls are set with regard to the adequacy of controls proposed by the Licence Holder. The conditions of the Issued Licence will be set to give effect to the determined regulatory controls.

### 8.1 Licence controls

#### 8.1.1 Stormwater runoff

The following environmental controls for the Drainage Catchment Dam should be maintained and operated for stormwater runoff management:

- HDPE liner maintained in good working order; and
- Freeboard of 300 mm maintained.

## 9. Determination of Licence conditions

The conditions in the Issued Licence in Attachment 1 have been determined in accordance with the *Guidance Statement: Setting Conditions*.

The *Guidance Statement: Licence Duration* has been applied and the Licence expires in 9 years from date of issue. This is based on mining tenement M08/272 having an expiry date of 12/06/2027.

Table 18 provides a summary of the conditions to be applied to this Issued Licence.



**Table 18: Summary of conditions to be applied**

<b>Condition Ref</b>	<b>Grounds</b>
Emissions Condition 1	This condition is valid, risk-based and consistent with the EP Act.
Infrastructure and Equipment Condition 2	This condition is valid, risk-based and contains appropriate controls.
Record-keeping Conditions 3, 4, 5 and 6	These conditions are valid and are necessary administration and reporting requirements to ensure compliance.

DWER notes that it may review the appropriateness and adequacy of controls at any time and that, following a review, DWER may initiate amendments to the Licence under the EP Act.

## **10. Licence Holder's comments**

The Licence Holder was provided with the draft Decision Report and draft Licence on 7 November 2017 for review and comment. The Licence Holder did not provide comments on the draft documents.

## **11. Conclusion**

This assessment of the risks of activities on the Premises has been undertaken with due consideration of a number of factors, including the documents and policies specified in this Decision Report (summarised in Appendix 1).

Based on this assessment, it has been determined that the Issued Licence will be granted subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

**Alana Kidd**

**Manager Licensing, Industry Regulation (Resource Industries)**

Delegated Officer

under section 20 of the *Environmental Protection Act 1986*

## Appendix 1: Key documents

	Document title	In text ref	Availability
1	Applicant Notification – L8640/2012/2 – Application for a Licence Renewal – Invoice Issued, received from Geof Luff (Onslow Metals), 10 October 2017	Application, 2017b	DWER records (A1537789)
2	Assessment and management of contaminated sites, Contaminated sites guidelines, Department of Environment Regulation, December 2014	Assessment and management of contaminated sites	accessed at <a href="http://www.der.wa.gov.au">http://www.der.wa.gov.au</a>
3	<i>Guidance Statement: Decision Making</i> , Department of Environment Regulation, February 2017	<i>Guidance Statement: Decision Making</i>	Accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
4	<i>Guidance Statement: Environmental Siting</i> , Department of Environment Regulation, November 2016	<i>Guidance Statement: Environmental Siting</i>	
5	<i>Guidance Statement: Licence duration</i> , Department of Environment Regulation, August 2016	<i>Guidance Statement: Licence duration</i>	
6	<i>Guidance Statement: Regulatory Principles</i> , Department of Environment Regulation, July 2015	<i>Guidance Statement: Regulatory Principles</i>	
7	<i>Guidance Statement: Risk Assessments</i> , Department of Environment Regulation, February 2017	<i>Guidance Statement: Risk Assessments</i>	
8	<i>Guidance Statement: Setting Conditions</i> , Department of Environment Regulation, October 2015	<i>Guidance Statement: Setting Conditions</i>	
9	Licence L8640/2012/1 – Range Quarry Project	Existing Licence L8640/2012/1	
10	<i>National Environment Protection (Assessment of Site Contamination) Measure 1999</i>	ASC NEPM	accessed at <a href="http://www.nepc.gov.au">http://www.nepc.gov.au</a>
11	National Water Quality Management Strategy, Australian and New Zealand Guidelines for Fresh and Marine Water Quality, Australian and New Zealand and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand, 2000	ANZECC and ARMCANZ, 2000	accessed at <a href="http://www.environment.gov.au">www.environment.gov.au</a>
12	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. (1960-1968). Atlas of Australian	Northcote, 1960-68	accessed at <a href="http://www.asris.csiro.au">http://www.asris.csiro.au</a>

	Document title	In text ref	Availability
	Soils, Sheets 1 to 10. With explanatory data (CSIRO Aust. and Melbourne University Press: Melbourne)		
13	Range Quarry Project – Operating Licence (L8640/2012/1) Renewal Application, Onslow Metals Pty Ltd, received from Feigh Sugg (Clark Lindbeck & Associates), dated 4 September 2017 and including Licence Renewal Application Form, Attachment 1A, Attachment 1B, Attachment 2, Attachment 3A, Attachment 4, Attachment 6A, Attachment 7 and Attachment 9	Application, 2017a	DWER records (A1516848)
14	RE: Applicant Notification – L8640/2012/2 – Referral of a Licence – Request for Comment, received from Keren Raiter (Department of Biodiversity, Conservation and Attractions), dated 9 November 2017	DBCA, 2017	DWER records (A1559543)
15	Understanding Salinity – Salinity status classifications, by total salt concentration, Department of Water and Environmental Regulation	Salinity status classifications	Accessed at <a href="http://www.water.wa.gov.au/water-topics/water-quality/managing-water-quality/understanding-salinity">http://www.water.wa.gov.au/water-topics/water-quality/managing-water-quality/understanding-salinity</a>

## Attachment 1: Issued Licence L8640/2012/2

---