



<b>Licence Number</b>	L8859/2014/1
<b>Licence Holder</b>	Mineral Resources Limited
<b>ACN</b>	118 549 910
<b>File Number:</b>	DER2014/001998
<b>Premises</b>	Iron Valley Iron Ore Project Mining Tenement M47/1439 and Miscellaneous Licence L47/757 Newman WA 6753 As depicted in Schedule 1
<b>Date of Amendment</b>	12/07/2019

## Amendment

The Chief Executive Officer (CEO) of the Department of Water and Environmental Regulation (DWER) has amended the above Licence in accordance with section 59 of the *Environmental Protection Act 1986* (EP Act) as set out in this Amendment Notice. This Amendment Notice constitutes written notice of the amendment in accordance with section 59B(9) of the EP Act.

**Alana Kidd**  
**Manager, Resource Industries**

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

# Definitions and interpretation

## Definitions

In this Amendment Notice, the terms in Table 1 have the meanings defined.

**Table 1: Definitions**

Term	Definition
ACN	Australian Company Number
Amendment Notice	refers to this document
Category/ Categories/ Cat.	categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department Administering the <i>Environmental Protection Act 1986</i> Prime House Locked Bag 10 JOONDALUP DC WA 6919 <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a>
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.
DWER	Department of Water and Environmental Regulation
EPA	Environmental Protection Authority
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
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
Licence Holder Licensee	Mineral Resources Limited
Minister	the Minister responsible for the EP Act and associated regulations
MS	Ministerial Statement
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.
Risk Event	as described in <i>Guidance Statement: Risk Assessment</i>

## Amendment Notice

This amendment is made pursuant to section 59 of the *Environmental Protection Act 1986* (EP Act) to amend the Licence issued under the EP Act for a prescribed premises as set out below. This notice of amendment is given under section 59B(9) of the EP Act.

This notice is limited only to an amendment for Category 89. No changes to the aspects of the original Licence relating to Categories 5 and 6 have been requested by the Licence Holder.

The following guidance statements have informed the decision made on this amendment:

- *Guidance Statement: Regulatory Principles (July 2015)*
- *Guidance Statement: Setting Conditions (October 2015)*
- *Guidance Statement: Decision Making (February 2017)*
- *Guidance Statement: Risk Assessment (February 2017)*
- *Guidance Statement: Environmental Siting (November 2016)*

### Amendment description

On 23 May 2019, the Licence Holder applied to amend Licence 8859/2014/1 to allow for the relocation of the existing landfill site to a new location within the premise boundary. All approved accepted waste types and premise design capacity is to remain the same at 750 tonnes per annum.

The landfill will comprise of four trenches 50 metres long by 25 metres wide and 5 metres deep and each trench will service the site for a period of approximately three years, with only one trench operational at a time. Soil materials excavated from the trench will be stockpiled and used for intermediate and final capping of each trench. A buffer zone will be established around the landfill and a firebreak of 3 metres will be maintained around the facility.

The Licence Holder has advised that the existing landfill is located within the area designated as the 'waste dump' under the mining proposal layout and that the new landfill will be located within the 'open pit' landuse category.

The relocation of the landfill will have implications for some groundwater monitoring bore locations. Consequently monitoring bores will be relocated to ensure risk to potential groundwater contamination is being assessed. It is proposed that all monitoring parameters and frequencies remain the same.

Table 2 below outlines the proposed changes to the Licence.

**Table 2: Proposed changes**

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment
89	750 tonnes per annum	750 tonnes per annum	Relocation of the current approved landfill site to a new location within the premise boundary

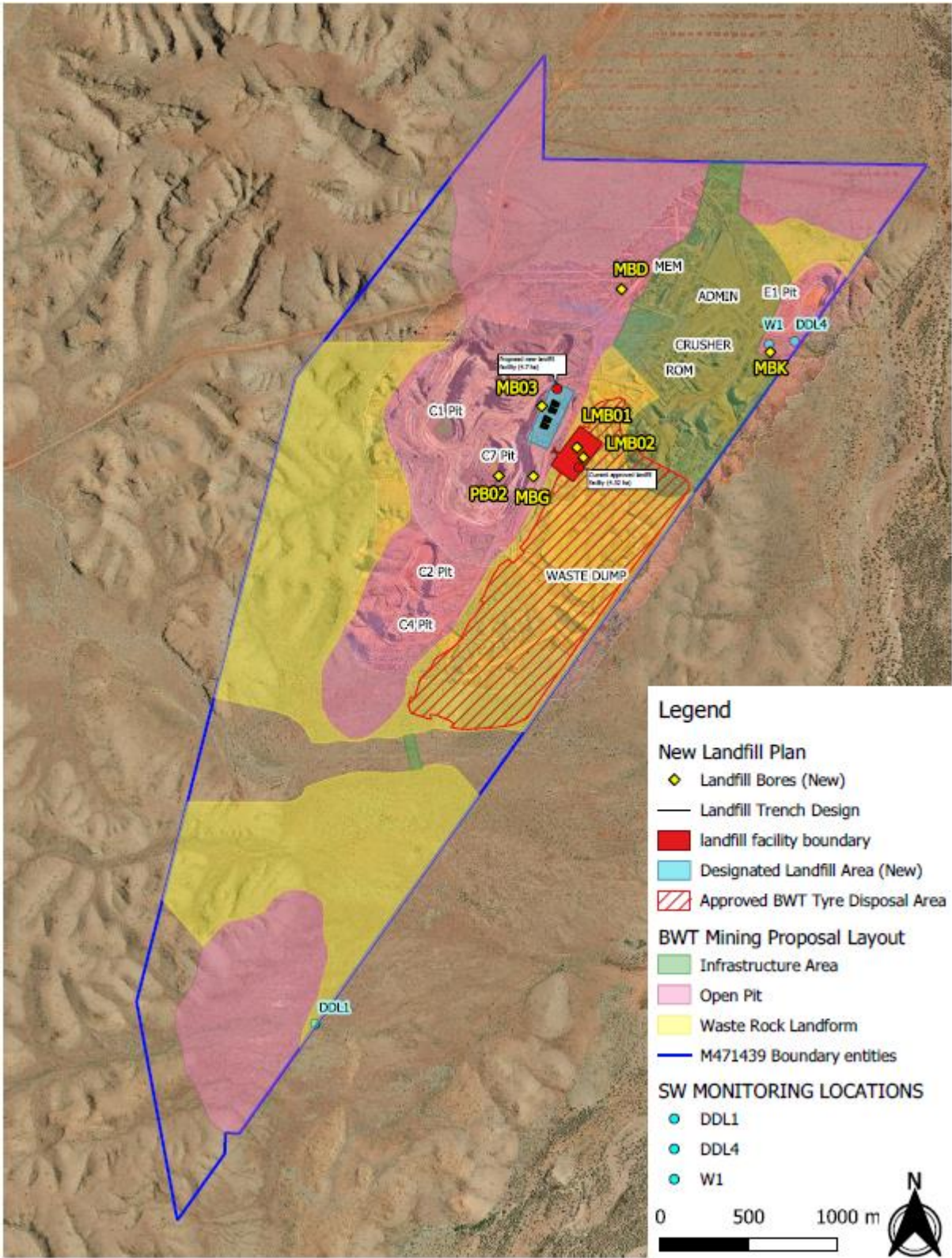


Figure 1: Location of existing and proposed landfill sites. New site shaded blue.



## Other approvals

The Licence Holder has other approvals as outlined in Table 3.

**Table 3: Relevant approvals**

Legislation	Number	Approval
<i>Mining Act 1978</i>	M47/1439 and L47/757	Mining tenement and Miscellaneous lease
<i>Rights in Irrigation and Water Act 1914</i>	GWL 182884 expires 1 May 2028	Abstraction of up to 23,000,000kL of water for the purposes of dewatering for mining purposes, dust suppression, exploratory drilling, mineral ore processing, mining camp and road construction purposes.
Part IV, <i>Environmental Protection Act 1986</i>	MS 1044 issued on 8 December 2016	Ministerial Statement 1044 – Revised Iron Valley Iron Ore Project (Previous statement number 933).  In November 2018, the Licensee submitted an application under Section 45C of the <i>Environmental Protection Act 1986</i> to increase dewatering and discharge.

## Amendment history

Table 4 provides the amendment history for the Prescribed Premise.

**Table 4: Licences and Works Approvals issued to the Premise since 23 August 2013.**

Instrument	Issued	Amendment
W5454/2013/1	23/08/2013	Works Approval (category 5 and 89)
W5454/2013/1	06/03/2014	Works Approval – Transfer of Works Approval
L8859/2014/1	18/12/2014	New Licence
L8859/2014/1	19/02/2015	Proponent requested Licence amendment to include categories 5, 6 and 57.
L8859/2014/1	17/06/2016	Proponent requested Licence amendment to dispose of 2 GL of dewatering effluent to undertake Below Water Table mining.  Inclusion of construction conditions for Stage 1 and Stage 2 and the increase in capacity to 10,000,000 tonnes per annum for category 5.
L8859/2014/1	15/12/2016	Proponent requested Licence amendment to increase the capacity of category 6, the approval to accept and dispose of plastics and asbestos at the Landfill, dispose of rubber to the Tyre Disposal Area and expansion of the Tyre Disposal Area.  Inclusion of conditions relating to the construction of Stage 2, additional screener and dewatering discharge infrastructure, process limits, emission points to surface water and removal of process monitoring, ambient surface water monitoring and improvement conditions.
L8859/2014/1	On hold	In December 2018, the proponent requested an increase to the approved dewatering volume from 17 gigalitres per annum to 42 gigalitres per annum.  In November 2018, the Licensee submitted an application under Section 45C of the <i>Environmental Protection Act 1986</i> , to make changes to Ministerial Statement 1044, to increase dewatering and discharge.  This Licence Amendment is on hold until the Minister has made a decision on whether to approve the changes to the proposal.
L8859/2014/1	12/07/2019	Proponent requested Licence amendment to relocate the existing landfill site.  Groundwater monitoring points were also relocated

## Location and receptors

Table 5 below lists the relevant sensitive land uses in the vicinity of the Prescribed Premise which may be receptors relevant to the proposed amendment.

**Table 5: Receptors and distance from activity boundary**

Residential and sensitive premises	Distance from Prescribed Premises
Yandi mining camp	6km

Table 6 below lists the relevant environmental receptors in the vicinity of the Prescribed Premise which may be receptors relevant to the proposed amendment.

**Table 6: Environmental receptors and distance from activity boundary**

Environmental receptors	Distance from Prescribed Premises
Weeli Wolli Creek	200m north east
Priority Ecological Community (P3) – Vegetation of sand dunes of the Hamersley Range/Fortescue Valley	2.2km west of premise boundary
Fortescue Marshes – proposed Ramsar addition	26.5km north east of premise boundary
Newman Water Reserve – Public Drinking Water Source Area	58km south west of premise boundary
Karijini National Park	65km north west of premise boundary
Groundwater	Approximately 45m below ground level at bore MB03

## Risk assessment

Tables 7 and 8 below describe the Risk Events associated with the amendment consistent with the *Guidance Statement: Risk Assessments*. Both tables identify whether the emissions present a material risk to public health or the environment, requiring regulatory controls.

**Table 7: Risk assessment for proposed amendments during construction**

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning	
Source/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts					
Cat 89 Putrescible landfill site	Construction of alternate landfill site	<b>Dust:</b> associated with construction activities i.e. movement of vehicles and digging of trenches	Yandi mining camp – 6km	Air	Health and amenity impacts	N/A	N/A	N/A	The Delegated Officer considers the distance to the nearest sensitive receptor is too great for dust impacts to effect health and amenity, and significant ecological communities.
			Priority Ecological Community (P3) – Vegetation of sand dunes of the Hamersley Range/Fortescue Valley – 2.2km		Smothering of native vegetation				

**Table 8: Risk assessment for proposed amendments during operation**

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning	
Source/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts					
Cat 89 Putrescible landfill site	Operation of the landfill site	Dust: associated with operation of the new landfill	Yandi mining camp – 6km	Air	Health and amenity impacts	N/A	N/A	N/A	The Delegated Officer considers the distance to the nearest sensitive receptor is too great for dust impacts to effect health and amenity, and significant ecological communities.
			Priority Ecological Community (P3) – Vegetation of sand dunes of the Hamersley Range/Fortescue Valley – 2.2km		Smothering of native vegetation				
		Seepage of leachate	Groundwater	Groundwater	Adverse impacts to the health and survival of vegetation dependent				



					upon groundwater				<p>Groundwater is approximately 45 below ground level at bore MB03. The distance to ground level should be sufficient to ensure that groundwater quality is not compromised.</p> <p>Licence conditions for the management of waste already exist and therefore no further regulatory controls are required.</p>
	Odour: associated with waste disposal	Yandi mining camp – 6km	Air	Health impacts	N/A	N/A	N/A	<p>The Delegated Officer considers the distance to the nearest sensitive receptor is too great for impacts from odour to occur.</p>	

## Decision

Conditions (1.2.2, 1.2.3, 1.2.4, 3.1.1, 3.1.2, 3.1.3, 3.1.4, 3.2, 3.3.1, 3.4 and 3.4.1) currently on the Licence capture operational emissions relating to landfill and monitoring requirements, therefore no additional conditions have been added to the Licence. Condition 3.4.1 has been updated to reflect the change in groundwater monitoring bore locations. Schedule 1 maps have been update to illustrate the new location of the landfill and groundwater monitoring bores.

The Delegated Officer has determined to grant the Amended Licence with no additional conditions.

## Licence Holder's comments

The Licence Holder was provided with the draft Amendment Notice on 5 July 2019. The Licence Holder responded on 11 July 2019 waiving the remaining consultation period.

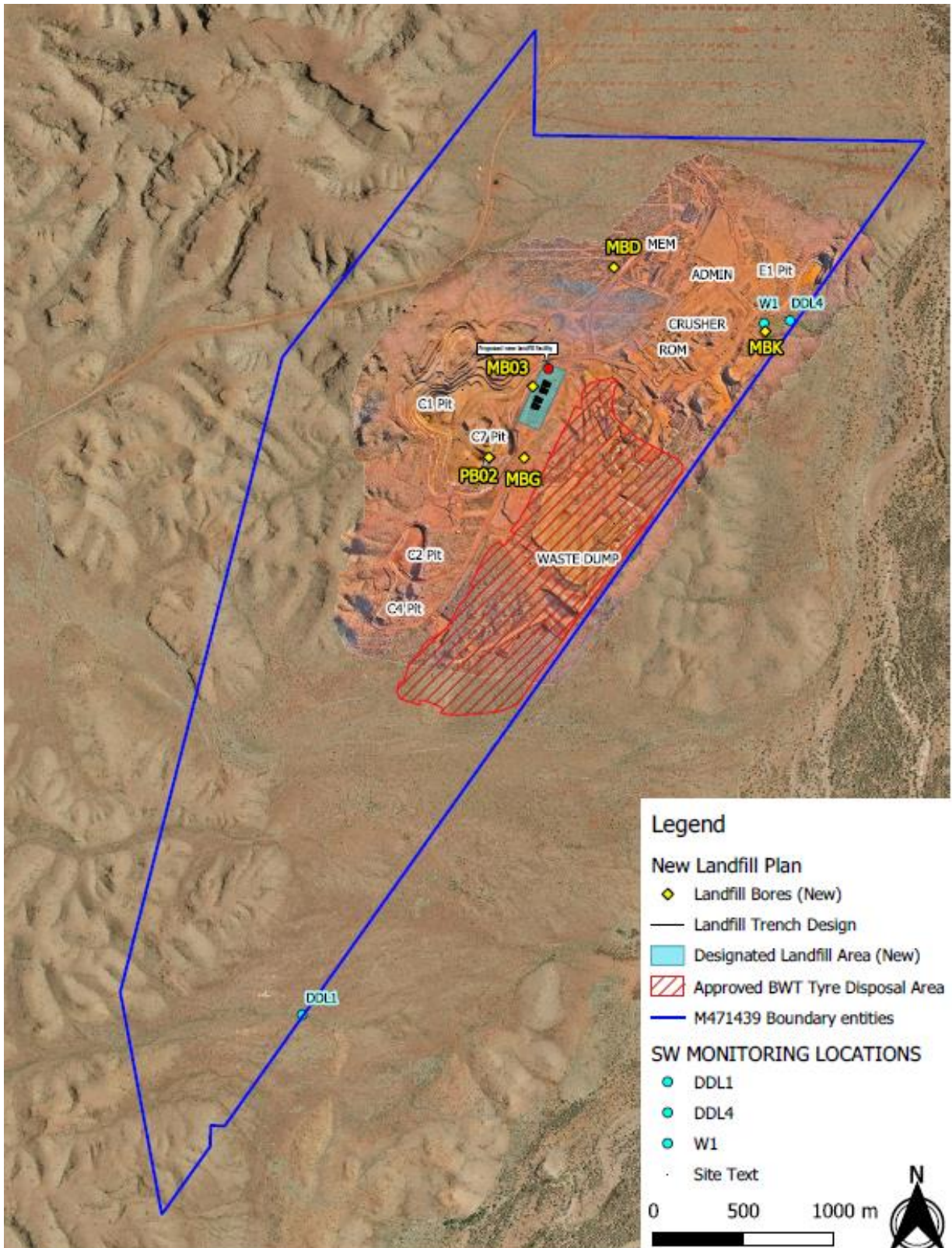
## Amendment

- Condition 3.4.1 of the Licence is amended by the deletion of the text shown in strikethrough and the insertion of the bold text below:

The Licensee shall undertake the monitoring in Table 3.4.1 according to the specifications in that table.

<b>Table 3.4.1: Ambient groundwater monitoring</b>				
<b>Monitoring point reference and location on Map of emission points</b>	<b>Parameter</b>	<b>Units</b>	<b>Averaging period</b>	<b>Frequency</b>
PB02, <del>LMB01</del> , <del>LMB02</del> , <b>MB03</b> , <b>MBG</b> , MBD and MBK	Standing water level <sup>1</sup>	m(AHD)	Spot sample	Six monthly
	pH <sup>1</sup>			
	Electrical conductivity <sup>1</sup>	µS/cm		
	Total Suspended Solids (TSS)	mg/L		
	Total Dissolved Solids (TDS)			
	Total Nitrogen (TN)			
	Total Phosphorus (TP)			
	Arsenic			
	Cadmium			
	Chloride			
	Chromium (total)			
	Copper			
	Iron			
	Lead			
	Mercury			
Manganese				
Nickel				
Potassium				
Zinc				
Total Recoverable Hydrocarbon (TRH)				

2. Schedule 1 'Map of emission points and monitoring location' is to be read in conjunction with the below map which indicates the amended location of the landfill and the landfill monitoring bores.



## Appendix 1: Key documents

	Document title	In text ref	Availability
1	Application form and Supporting Documentation to Part V Licence Amendment L8859/2014/1	N/A	DWER records (DWERDT162078)
2	Licence L8859/2014/1	L8859/2014/1	accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
3	Ministerial Statement 1044	MS 1044	accessed at <a href="http://www.epa.wa.gov.au/">www.epa.wa.gov.au/</a>
4	DER, July 2015. <i>Guidance Statement: Regulatory principles.</i> Department of Environment Regulation, Perth.	DER 2015a	accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
5	DER, October 2015. <i>Guidance Statement: Setting conditions.</i> Department of Environment Regulation, Perth.	DER 2015b	
6	DER, November 2016. <i>Guidance Statement: Risk Assessments.</i> Department of Environment Regulation, Perth.	DER 2016b	
7	DER, November 2016. <i>Guidance Statement: Decision Making.</i> Department of Environment Regulation, Perth.	DER 2016c	