



## Application for licence

### Part V Division 3 of the *Environmental Protection Act 1986*

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<b>Licence number</b>	L9234/2020/1
<b>Applicant</b>	Carbone Bros Pty Ltd
<b>ACN</b>	008 702 369
<b>DWER file number</b>	DER2019/000644
<b>Premises</b>	Lot 5 Wellesley Road  Lot 5 on Plan 5888 Wellesley Road, WELLESLEY, SHIRE OF HARVEY  As defined by the Premises map attached to the issued licence
<b>Date of report</b>	14/07/2020

# 1. Definitions

Key terms relevant to this decision report and their associated definitions are listed in Table 1.

**Table 1: Definitions**

Term	Definition
Applicant	Carbone Bros Pty Ltd
Category / categories	Categories of prescribed premises as set out in Schedule 1 of the EP Regulations.
Decision Report	refers to this document.
Delegated Officer	An officer delegated under section 20 of the EP Act.
Department	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 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.
Emission	has the same meaning given to that term under the EP Act.
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
Licence Holder	Carbone Bros Pty Ltd
Minister	the Minister responsible for the EP Act and associated regulations
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	This 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 Licence
Risk Event	As described in <i>Guidance Statement: Risk Assessment</i>

## 2. Overview of premises

### 2.1 Classification of Premises

**Table 2: Classification of premises and assessed design capacity**

Category	Description	Assessed 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.	60,000 tonnes per annum

### 2.2 Description of proposed activity

The Wellesley Road Quarry is a sand quarry that has been operating a screening plant without a licence for a number of years. This was identified by Carbone Bros Pty Ltd during the planning to develop Stage 9 (as depicted in Figure 1) of the quarry operations. A works approval to cover the screening of sand extracted from the quarry was applied for in September 2019 but was withdrawn in November 2019 as it was clear that the screening plant was already established on the Premises and had been in use to process previous stages of development in the quarry. The DWER do not grant retrospective works approvals so a licence to operate the existing infrastructure was applied for.

This licence was applied for at the commencement of Stage 9 of the quarry the life expectancy of Stage 9 of the quarry as provided in the application form is 5 years but the life of the screening operations is expected to extend beyond this. The stages of quarry development relate to the areas from which sand is extracted rather than changes in location or equipment related to the screening of the sand. Stages 10 – 12 of the quarry are being prepared for with an application to DWER for a clearing permit (CPS8561/1 application under assessment) and for an extractive industry licence with the Shire of Harvey.

Operations include:

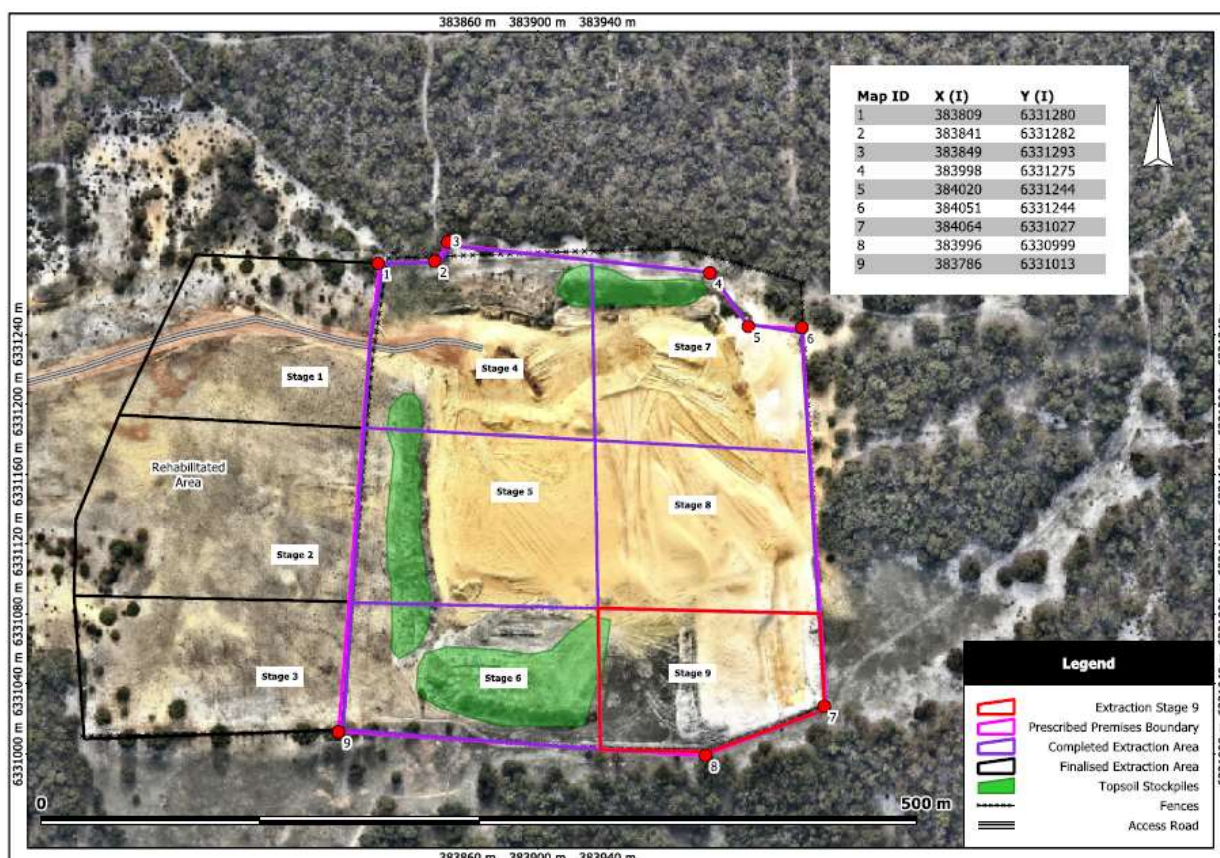
- topsoil removal – stripped topsoil from each stage will be placed in windrows along the edges of the working area to serve as noise, stormwater and visual barriers.
- A bulldozer will blade the sand into the screening site in Stage 4 (as depicted in Figure 1) until a large raw material stockpile has accumulated.
- A screening unit will be used for a period of approximately four weeks to process the accumulated stockpile.
- Trucks, as required, will enter and cart material out of the site.

After extraction, the land surface will be approximately 1m lower than the original height, apart from the batters which will be at a maximum gradient of 1:6.

The infrastructure and equipment are outlined in the table below and the site layout is shown in Figure 1.

**Table 3: Infrastructure and equipment**

Ref	Infrastructure or Equipment	Site Layout Plan reference (Figure 1)
1	Terex-Finlay 770 Trommel: noise levels = 85dB at 10m from the machine. Hopper volume 3.7m <sup>3</sup>	Figure 1 - Stage 4
2	Water cart: dampens access tracks between the active extraction and screening/stockpile areas and active work areas. The capacity of the truck is 12,000 litres when full. The water quality used in the truck is approximately 1000mg/L Total Dissolved Solids which is considered to be marginal to brackish. Water is sourced from the Harvey Water Supply Network access point on Wellesley Rd.	Not depicted
3	D9 bulldozer, 2 x front end loaders	Not depicted
4	Transport trucks: loads covered to prevent dust lift off.	Not depicted



**Figure 1: Site Layout Plan**

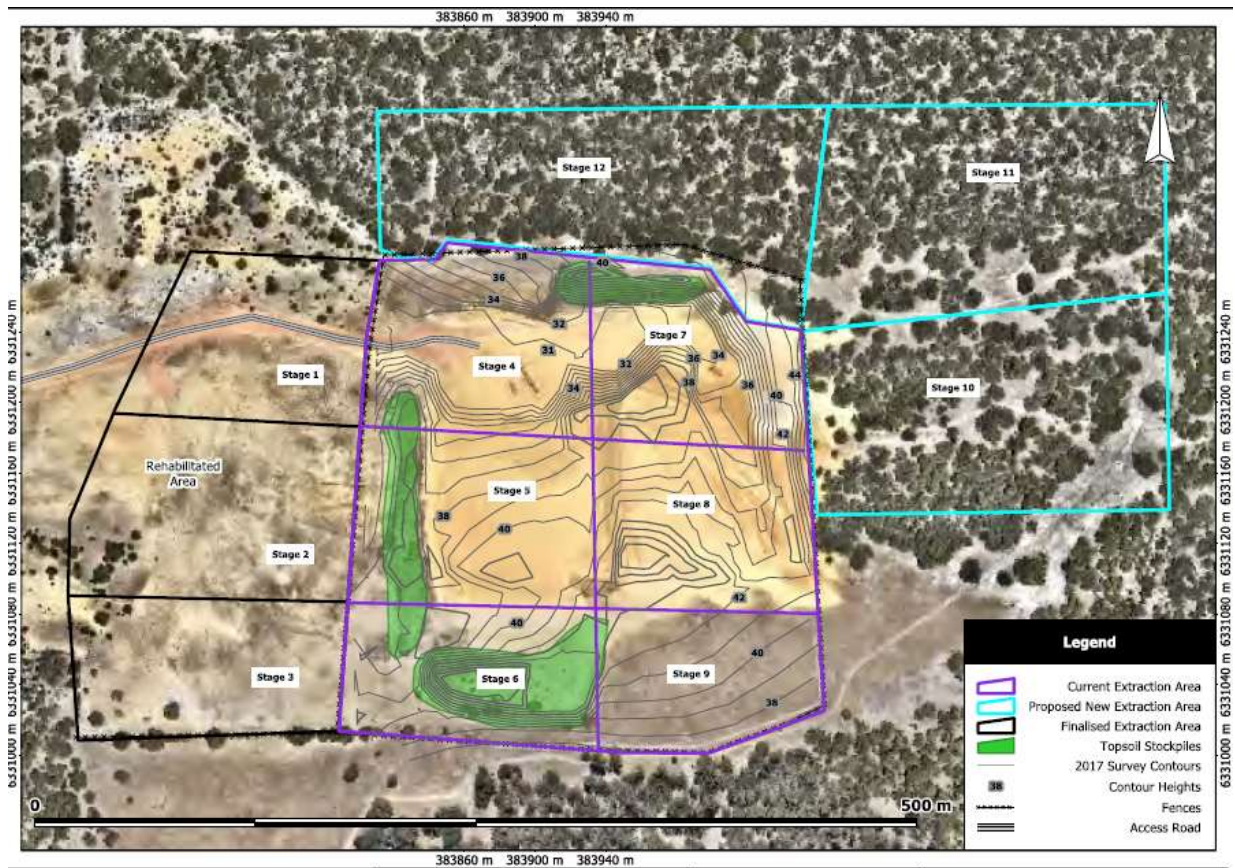


Figure 2: Areas of future expansion of extraction area

### 3. Legislative context and other approvals

The legislative framework for this assessment is the *Environmental Protection Act 1986* (EP Act) and *Environmental Protection Regulations 1987* (EP Regulations).

Relevant guidance documents are outlined in **Error! Reference source not found..**

Approvals relevant to the premises are outlined in the table below.

Table 4: Approvals relevant to the premises

Legislation	Number	Approval
<i>Planning and Development Act 2005</i>	A2409/EX/002	Extractive industries Licence (EIL) issued by Shire of Harvey on 23 November 2018 for Stage 9. It expires on 3 September 2023. The EIL for Stages 10-12 has not been issued at the time of this assessment.
<i>Environmental Protection Act 1986</i>	CPS5321/1 and CPS8561/1	The vegetation clearing permit CPS5321/1 (expired) covered the clearing of Stage 9, the clearing was completed. CPS8561/1 (under assessment) covers Stages 10 – 12.

## 4. Emission sources, pathways, receptors and controls

### 4.1 Emissions

The potential for emissions to impact on sensitive receptors has been assessed in accordance with the Department's Risk Framework. A risk assessment for the operations has been included in this Decision Report. The key emissions considered during premises operation are dust and noise from screening, material handling and transport. Hydrocarbons are not stored on the premises and refuelling is carried out by mobile vehicles making spills unlikely.

### 4.2 Pathways

As dust and noise are considered potential emissions, the prevailing wind direction has been considered. Using information available on the Bureau of Meteorology's website, the closest available weather station for climate data is Bunbury (No. 9965). Based on the climate data for Bunbury station (November 1995 to August 2019), the prevailing wind direction is predominantly easterly in the morning and westerly in the afternoon.

This pathway has been considered in the risk assessment table in Section 5.

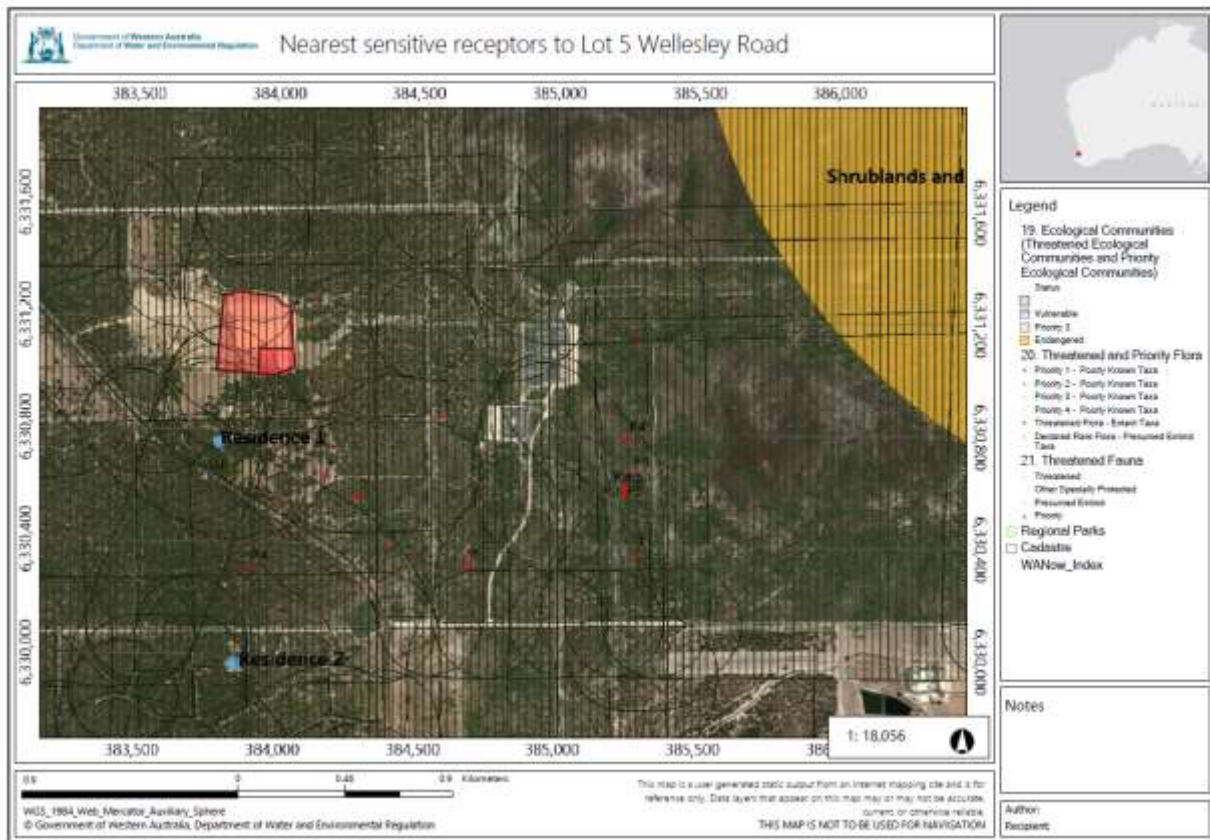
Migration through soil to groundwater is not considered a pathway for contaminants as there is no direct discharge to land and no storage of hydrocarbons or other hazardous chemicals on the premises that could create a significant spill.

### 4.3 Receptors

Risk is assessed as a combination of emission sources, the proximity and sensitivity of receptors to those emission sources and any pathways that can allow the emission to reach and potentially harm the receptor. Figure 3 and the table below provides a summary of human and environmental receptors in proximity to the premises which have a potential to be impacted from site activities, and the risk assessment in Section 5 considers these receptors in the context of emissions and potential pathways.

**Table 5: Potential receptors of emissions from the premises**

<b>Human receptors</b>	<b>Distance from activity or prescribed premises</b>
Residences to the south of quarry (not within distance of prevailing wind direction)	1 property within 320m of nearest working area of sand extraction and within 480m of the screening plant.  Next nearest property is approximately 1km from the nearest working are of sand extraction and 1.25km form the screening plant.
<b>Environmental receptors</b>	<b>Distance from activity / prescribed premises</b>
Priority ecological community (PEC) - Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region – Priority 3	The Premises is within an area of Banksia dominated woodlands common to sandy alluvium and Aeolian sands.
Threatened ecological community (TEC) Shrublands and woodlands on Muchea Limestone of the Swan Coastal Plain - Endangered	The nearest Premises boundary is within 800m of the TEC but the screening plant is 1.82km of the community.



**Figure 3: Distance to sensitive receptors**  
*The premises is depicted as the red shaded area.*

#### 4.4 Applicant controls

The Applicant has proposed the following management measures and controls as part of the application:

**Table 6: Applicant controls of emissions**

Emission (as identified above)	Source	Proposed controls
Dust	Screening of material, vehicle movements, lift-off from stockpiles and/or stored product, earthworks etc.	<p>The actions in the 'Dust management plan: Prepared for Carbone Bros On Lot 5 Wellesley Road, Wellesley, Shire of Harvey'.</p> <p>Daily:</p> <ul style="list-style-type: none"> <li>Water cart application over dust prone areas to reduce dust lift off.</li> <li>Cover loads</li> </ul> <p>As required:</p> <ul style="list-style-type: none"> <li>If the wind is blowing strongly from the from the north or from the east in the direction of the closest residences to the south and conditions are dusty, then operations will be stopped until such time as adequate wetting down has occurred.</li> </ul>

		<ul style="list-style-type: none"> <li>• A polymer based spray-on soil stabilizer will be applied to topsoil and overburden stockpiles if they do not stabilize by crusting and grass regrowth.</li> <li>• Internal roads will be surfaced with limestone.</li> <li>• Site induction includes awareness of dust generation and management measures to be utilised by all personnel on site.</li> <li>• review of complaints and implement appropriate action to reduce dust generation from site.</li> </ul>
Noise	Screening of material and vehicle movement	<p>Working hours within the pit area, including screening of the sand and transportation of materials shall be restricted to the hours between 0700 and 1800 Mondays to Friday; 0700 and 1200 Saturdays and at no time on Sundays or public holidays.</p> <p>Low frequency reversing alarms are to be used on all heavy machinery and all machinery is to be maintained to manufacturer's specifications.</p> <p>Stripped topsoil will be placed in windrows along the edges of the working area to serve as noise, stormwater and visual barriers. Topsoil stockpiles are illustrated in Figure 2. The position of the piles is between the quarry and screening plant and the nearest residential premises.</p>

## 5. Risk assessment

The identification of the sources, pathways and receptors to determine Risk Events are set out in Table 7 below, consistent with the *Guidance Statement: Risk Assessments*. Risk ratings have been assessed for each key emission source and take into account potential source-pathway-receptor linkages.

The mitigation measures / controls proposed by the Applicant have been considered in determining the risk rating. Emissions during construction and operation have been assessed separately to allow clear delineation of activity phases.

The conditions in the issued Licence, as outlined in Table 7, have been determined in accordance with the *Guidance Statement: Setting Conditions*.



## 5.1 Risk assessment – operation

Table 7: Risk assessment for premises operations

Risk Event				Consequence rating*	Likelihood rating*	Risk*	Reasoning	Regulatory controls
Source/Activities*	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
<p>Screening activities</p> <p>Unloading, loading and storage of material</p> <p>Vehicle movements</p>	Dust	Air/windborne pathway causing impacts to health and amenity of closest human receptors.	Please refer to Section 4.4	Moderate	Unlikely	Medium	<p>The Applicant's proposed dust mitigation controls are likely to be sufficient at mitigating dust emissions.</p>	<p>Condition 1 – specifies dust aprons on transfer hoppers and a water truck to be present during operations.</p> <p>Condition 3 – specifies the use of the water truck in wetting down key dust generating areas of the operation.</p> <p>Condition 5 – the recording and management of complaints, including actions taken to address the complaint.</p>

Risk Event				Consequence rating*	Likelihood rating*	Risk*	Reasoning	Regulatory controls
Source/Activities*	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
	Noise	Air/windborne pathway causing impacts to health and amenity of closest highly sensitive noise areas (residence <400m from Premises).	Please refer to Section 4.4	Moderate	Possible	Medium	<p>Stripped topsoil stockpiles have been placed between the active where the screener is positioned and the nearest residence to act as a noise barrier.</p> <p>Low frequency reversing alarms are to be used on all heavy machinery.</p> <p>Working hours within the pit area, including screening of the sand and transportation of materials shall be restricted to the hours between 0700 and 1800 Mondays to Friday; 0700 and 1200 Saturdays and at no time on Sundays or public holidays. This is in accordance with the <i>Environmental Protection(Noise) Regulations 1997</i>.</p> <p>The prevailing wind direction is predominantly easterly in the morning and westerly in the afternoon. The nearest sensitive receptor is to the south of the screening plant with stockpiles of topsoil and sand causing a bund between the screening plant and the residence. This will reduce the likelihood of noise exceedance at the receptor site which can be confirmed by noise monitoring as covered in licence conditions.</p>	<p>Conditions 4, 8, 9 and 10 make it a requirement to monitor noise produced by the prescribed activities on the premises. This monitoring is to be carried out within 120 days and reported to the DWER within 6.5 months of the licence commencing.</p> <p>Ongoing monitoring will only be required if the initial monitoring exceeds the limits set by the <i>Environmental Protection(Noise) Regulations 1997</i>.</p> <p>Condition 5 – the recording and management of complaints including actions taken to address the complaint.</p>

\*Consequence ratings, likelihood ratings and risk descriptions are detailed in the Department's Guidance Statement: Risk Assessments (February 2017)

## 6. Consultation

**Table 8:**

Method	Comments received	DWER response
Application advertised on DWER website (14/05/2020)	No comments received	NA
Local Government Authority advised of proposal (14/05/2020)	Application meets relevant Shire Development Approvals and Extractive Industry Licence.	NA
Other Stakeholders: nearest resident advised of proposal (14/05/2020)	No comments received	NA
Applicant referred draft documents (1/07/2020)	Advised no dust covers on the screener. Noise is likely to be low due to the position of the screening equipment and no complaints have been received previously.	Comments taken into consideration but the noise monitoring conditions are to remain as no noise monitoring or modelling has been previously undertaken to support assumption of low noise. Conditions are in keeping with similar licences for premises in proximity to a sensitive receptor.

## 7. Conclusion

Based on the assessment in this decision report, the Delegated Officer has determined that a licence will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

These conditions reflect the controls determined to be necessary for emissions management, administration and reporting requirements.

**Lauren Fox**  
**A/MANAGER RESOURCE INDUSTRIES**  
 INDUSTRY REGULATION

*An officer delegated by the CEO under section 20 of the EP Act*

## Appendix 1: Key documents

Document title	Availability
Licence (L9234/2019/1) application form and supporting documentation (December 2020)	DWER records (A1849928)
DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth.	accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
DER, October 2015. <i>Guidance Statement: Setting conditions</i> . Department of Environment Regulation, Perth.	
DER, August 2016. <i>Guidance Statement: Licence duration</i> . Department of Environment Regulation, Perth.	
DER, February 2017 <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	
DWER, June 2019 <i>Guideline: Decision Making</i> Department of Water and Environmental Regulation	