



Amendment Report

Licence Number L7025/1997/13

Licence Holder Shire of Meekatharra

File Number: 2010/003371-1

Premises Meekatharra Refuse Site
Lot 191 on Plan 218548, Crown Reserve 45111
Great Northern HWY
MEEKATHARRA WA 6642

Date of Report 02 September 2019

Decision **Grant licence**

1. Definitions and interpretation

Definitions

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

Table 1: Definitions

Term	Definition
AACR	Annual Audit Compliance Report
AER	Annual Environment Report
Amendment Report	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 Environmental Protection Act 1986 Locked Bag 10 JOONDALUP DC WA 6919 info@dwer.wa.gov.au
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
K210	Septage Wastes – Liquid and solid components from the pump-out of septic tanks
Licence Holder	Shire of Meekatharra
Minister	the Minister responsible for the EP Act and associated regulations
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>
tpa	Tonnes per annum

2. Amendment description

The Licence Holder currently operates a Category 64 landfill facility and a facility that is currently permitted to accept 100 tonnes K210 liquid waste per year. The Licence Holder has applied to amend the Licence to include Category 61 to allow the acceptance of up to 1,000 tonnes per year of K210 liquid waste, with an expected actual acceptance of up to 800tpa. The waste is trucked to site by licenced Controlled Waste operators. The proposed site consists of 2 unlined liquid waste evaporation ponds which are used on a rotational basis allowing one pond to dry out and emptied while the other is filled. The ponds are each 20m x 10m with a depth of 1m not including the 500mm freeboard. It is noted that historically the Premises has accepted in excess of the 100tpa limit multiple times since 2010. During the 2018/19 financial year it was noted that contractors have disposed of liquid waste in excess of the permitted 100tpa resulting in the Licence Holder applying for this amendment to the Licence.

Schedule 1 Premises Map indicates the layout of the Premises with key access required to access the putrescible, hazardous and effluent waste disposal areas.

Table 2 below outlines the proposed changes to the Licence

Table 2: Proposed throughput capacity changes

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment
64	20 tonnes or more per year	unchanged	No change to Category 64 proposed
61	N/A	1000 tonnes per annual period	The addition of Category 61 to the Licence including an amendment to the Premises boundary.

2.1 CEO Initiated amendment

The CEO initiated an amendment to the type and style of the licence during June 2019 and has issued a revised licence incorporating all of the recent amendment notices. The obligations of the Licence Holder have not changed in making this amendment. During the consolidation of amendment notices; DWER has not undertaken any additional risk assessment of the Premises.

The CEO has:

3. Incorporated the 2019 amendment to add Category 61 to the Licence;
4. Updated the style and appearance of the Licence;
5. Deleted the redundant AACR form set out in Attachment 2 of the previous licence and advise the Licensee to obtain the form from the Department's website;
6. Corrected clerical mistakes and unintentional errors; and
7. Updated the expiry date to align with the 2016 amended expiry date.

8. Amendment history

Table 3 provides the amendment history for L7025/1997/13.

Table 3: Licence amendments

Instrument	Issued	Amendment
L7025/1997/13	02/08/2013	Licence Reissue
L7025/1997/13	29/04/2016	Licence Reissue

Instrument	Issued	Amendment
L7025/1997/13	02/09/2019t	Amendment to add Category 61 to the Licence and amend the Premises boundary. The Amendment includes a CEO initiated consolidation of the previous two amendments into the Licence. During the consolidation DWER has not undertaken any additional risk assessment.

9. Location and receptors

Table 4 below lists the relevant sensitive land uses in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 4: Receptors and distance from activity boundary

Residential and sensitive premises	Distance from Prescribed Premises
Haveluck disused minesite	Immediately to the east of Premises Boundary
Residential Premises	~1.7km south of Premises boundary, ~2.1km south of the liquid waste ponds.
Registered Aboriginal Sites and Heritage Places: Meekatharra Complex includes - Artefacts, scatter, ceremonial, man-made structure, mythological, repository/cache, skeletal material/ burial, water source, cave-painting Bumba/ Camel Soak includes- camp and water source Meekatharra Racecourse 1 and 5 includes – artefacts and scatter Meekatharra Creek/ Mikadah Soak includes – artefacts, scatter, camp and water source	Meekatharra Complex falls within the Premises Boundary to ~3.7km west of the Premises Boundary Bumba/ Camel Soak: ~1.5km south of the Premises Boundary Meekatharra Racecourse 1 and 5: ~1.8km south east, and ~2.1km east respectively of Premises Boundary Meekatharra Creek/ Mikadah Soak: ~3km south of the Premises Boundary

Table 5 below lists the relevant environmental receptors in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 5: Environmental receptors and distance from activity boundary

Environmental receptors	Distance from Prescribed Premises
Threatened Fauna sightings including the Peregrine Falcon (<i>Falco peregrinus</i>), the Long-tailed Dunnart (<i>Sminthopsis longicaudata</i>), and the Wood Sandpiper (<i>Tringa glareola</i>)	Few sightings scattered from ~1.3km south east of Premises Boundary, ~1.9km south west of the Premise Boundary, to ~5km south east of the Premises Boundary
Surface water- Lake Annean.	~6.7km east of Premises Boundary, and ~7.3km south of Premises Boundary.
Drainage channel flowing towards town.	Immediately East of the Premises Boundary.
Priority 1 flora: <i>Eremophila retropila</i>	~3.1km west south west of Premises Boundary, and ~5.3km south south west of the Premises Boundary.
Public Drinking Water Source Areas	~4.5km east of the Premises boundary.

Environmental receptors	Distance from Prescribed Premises
Groundwater	Groundwater depth in the area is 5 – 6mbgl.

10. Risk assessment

Table 6 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 6: 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 61 Liquid waste facility	Liquid waste containment infrastructure overtopping	Waste: K210 (Septage) wastewater and sludge	Direct Discharge	Human health and amenity impacts; Contamination of heritage sites	Moderate	Unlikely The risk event will probably not occur in most circumstances	Medium Acceptable with regulatory controls	Town water supply (PDWSA) is ~5km east of the Premises Boundary. Advice from the DWER Mid-west Region Water Program Manager Planning Advice received on 1 July 2019 concluded that the high evaporation rates in the region (>2,000mm per year), the structure of the ponds, and the management practices implemented on site limit the risk to the towns water supply. The Mid-West Region did not object to the proposed amendment to the Licence. There is a drainage channel located immediately East of the Premises Boundary, flowing towards the Town of Meekatharra 1.7km south of the Premises. The Delegated Officer considers there is a medium risk to the Town if overtopping occurred. There are sensitive Registered Aboriginal Sites within and directly adjacent the Premises Boundary, there is a medium risk to these sites and regulatory controls will be implemented to mitigate this risk. Condition W3(iv) on the Existing Licence ensures: <i>Overtopping does not occur except as a result of 1 in 10 year stormwater event of 72 hours duration.</i> Condition W1(c) on the Existing Licence Ensures: <i>The licensee shall ensure that stormwater that has come into contact with waste is diverted into a sump on the premises or otherwise retained on the premises.</i> The Delegated Officer considers existing conditions on the Licence are adequate at managing and mitigating the risk to human health and amenity and contamination of adjacent areas from overtopping of containment infrastructure.
				Surface water contamination				Registered Aboriginal Sites within and directly adjacent (west of) the Premises Boundary Drainage Channel Immediately East of Premises Boundary – flows towards Town Town of Meekatharra ~1.7km south of Premises Boundary Lake Annean ~6.7km east and ~7.3km south of Premises Boundary

<p>Cat 61 Liquid waste facility</p>	<p>Liquid waste leachate</p>	<p>Waste: leachate</p>	<p>Groundwater</p>	<p>Seepage of leachate</p>	<p>Groundwater contamination</p>	<p>Minor</p>	<p>Unlikely The risk event will probably not occur in most circumstances</p>	<p>Medium Acceptable with regulatory controls</p>	<p>Advice from the Mid-West Region Water Program Manager Planning Advice received on 1 July 2019 concluded that the risk to groundwater was negligible as they have been operating beyond their current Licensing threshold for multiple years with no serious incident. The high evaporation rates in the region (>2,000mm per year), the structure of the ponds, and the management practices implemented on site limit the risk to groundwater. The Mid-West Region did not object to the proposed amendment to the Licence.</p> <p>Groundwater in the area is 5 – 6mbgl, with no groundwater bores within a 3km radius of the Premises boundary.</p> <p>Condition W2(a) states: <i>The Licensee shall maintain an undisturbed separation distance of at least three metres between the waste and the highest level of the Water table aquifer at the Premises.</i></p> <p>Condition W3 on the Existing Licence requires that there is no seepage loss from the Septage Ponds. The Delegated Officer has removed this condition as the ponds are unlined and therefore some degree of seepage loss is considered inevitable. The Delegated Officer however has considered the quality and depth to groundwater and the evaporation rates at the premises and determined that the potential impacts associated with this seepage loss are not unacceptable.</p> <p>The high evaporation rates in the region (>2000mm per year), and the local geology indicates there is low to negligible risk of groundwater contamination via seepage.</p> <p>Condition S1(b) ensures that when sludge is stored temporarily onsite prior to disposal in the putrescible cell, it is stored in a hardstand area with adequate bunding that prevents surface runoff of leachate or sludge from crossing the Premises boundary, and returns leachate to the treatment pond.</p> <p>The Delegated Officer considers existing conditions on the Licence are adequate at managing and mitigating the risk to groundwater from liquid waste leachate.</p>
<p>Cat 61 Liquid waste facility</p>	<p>Septage ponds storing K210 wastewater and sludge</p>	<p>Odour:</p>	<p>Town of Meekatharra ~1.7km south of Premises Boundary</p>	<p>Air</p>	<p>Human amenity impacts</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>The Delegated Officer considers that the separation distance between sensitive receptors (the town of Meekatharra) and the Septage Ponds eliminates the risk of odour at the Premises.</p>

11. Decision

The Delegated officer considers the existing management practices and Licence Conditions at the Premises, with the minor amendments outlined below are adequate to mitigate the risks to groundwater, surface water, human health and amenity, and odour associated with the Septage Ponds. The Delegated Officer has therefore granted the following addition of Category 61 on the Licence in accordance with the following amendments.

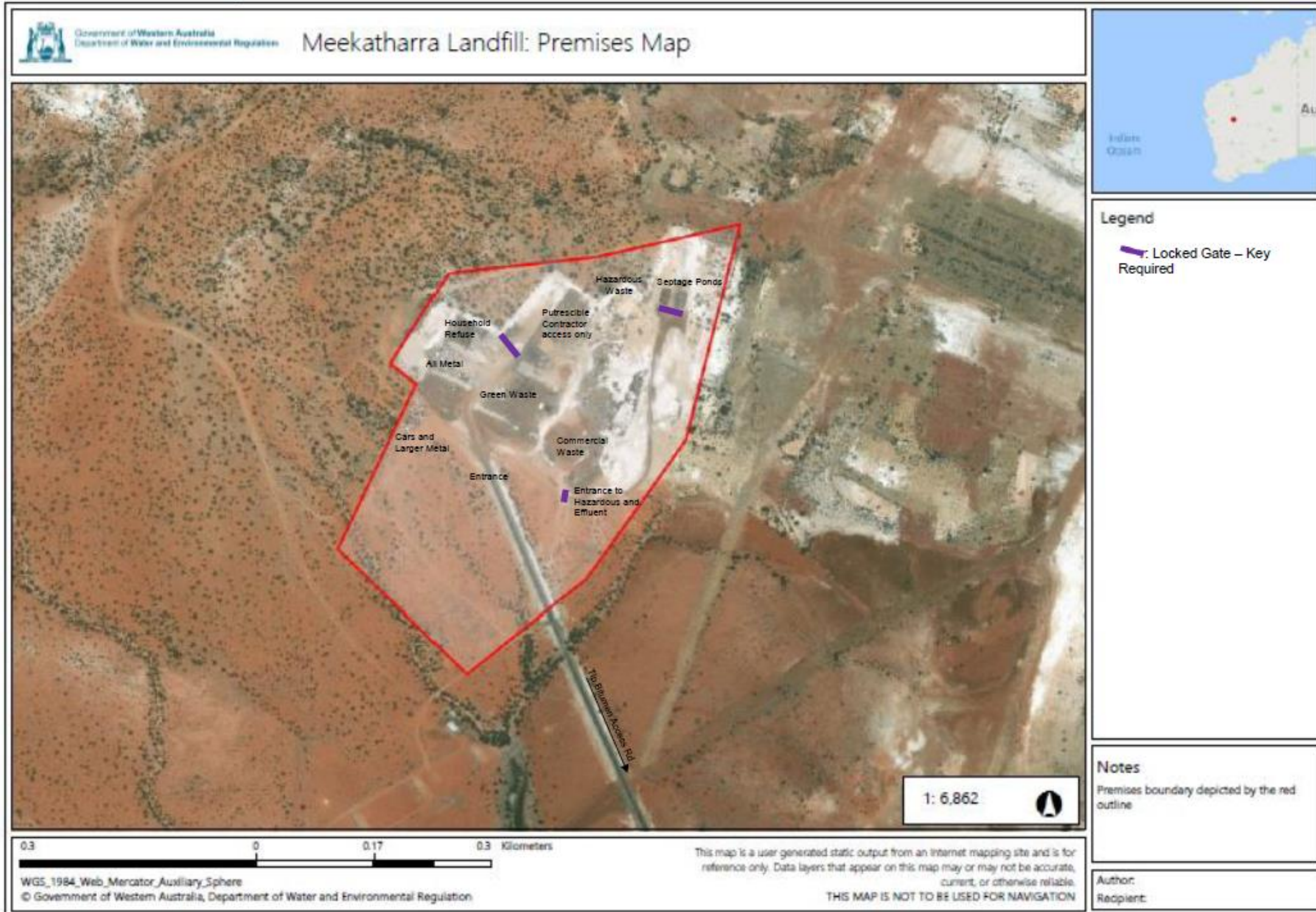
Condition W3 on the Existing Licence requires that there is no seepage loss from the Septage Ponds. The Delegated Officer has removed this condition as the ponds are unlined and therefore some degree of seepage loss is considered inevitable. The Delegated Officer however has considered the quality and depth to groundwater and the evaporation rates at the premises and determined that the potential impacts associated with this seepage loss are not unacceptable.

Advice from the Mid-West Region Water Program Manager Planning Advice received on 1 July 2019 concluded that the risk to groundwater was negligible as they have been operating beyond their current Licensing threshold for multiple years with no known impact. The high evaporation rates in the region (>2,000mm per year), the structure of the ponds, and the management practices implemented at the site lower the risk to groundwater and the towns water supply. The Mid-West Region did not object to the proposed amendment to the Licence.

12. Licence Holder's comments

The Licence Holder was provided with the draft Amended Licence and Amendment Report on 2 August 2019. No comments were received.

Schedule 1: Premises Maps



Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L7025/1997/13 – Meekatharra Landfill	L7025/1997/13	accessed at www.dwer.wa.gov.au
2	DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth.	DER 2015a	accessed at www.dwer.wa.gov.au
3	DER, October 2015. <i>Guidance Statement: Setting conditions</i> . Department of Environment Regulation, Perth.	DER 2015b	
4	DER, November 2016. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	DER 2016b	
5	DER, November 2016. <i>Guidance Statement: Decision Making</i> . Department of Environment Regulation, Perth.	DER 2016c	