



Licence

Environmental Protection Act 1986, Part V

Licensee: **Shire of Exmouth**

Licence: **L9001/2016/1**

Registered office: 22 Maidstone Crescent
 EXMOUTH WA 6707

Premises address: Qualing Scarp Waste Management Site
 Crown Reserve 43252
 EXMOUTH WA 6707
 Being Lot 219 on Plan 191996 as depicted in Schedule 1.

Issue date: Thursday, 22 December 2016

Commencement date: Monday, 26 December 2016

Expiry date: Thursday, 25 December 2036

Prescribed premises category
 Schedule 1 of the *Environmental Protection Regulations 1987*

Category number	Category description	Category production or design capacity	Approved Premises production or design capacity
57	Used tyre storage (general): premises (other than premises within category 56) on which used tyres are stored	100 tyres or more	1 000 used tyres
64	Class II or III putrescible site: premises on which waste (as determined by reference to the waste type sent out in the document entitled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer and as amended from time to time) is accepted for burial	20 tonnes or more per annual period	5 000 tonnes per annual period

Conditions

This Licence is subject to the conditions set out in the attached pages.

Date signed: 22 December 2016

.....
 Steve Checker
 MANAGER LICENSING (WASTE INDUSTRIES)
 Officer delegated under section 20
 of the *Environmental Protection Act 1986*



Contents

Licence	1
Contents	2
Introduction	2
Licence conditions	4
1 General	4
2 Monitoring	9
3 Information	11
Schedule 1: Maps	13

Introduction

This Introduction is not part of the Licence conditions.

DER's industry licensing role

The Department of Environment Regulation (DER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

Licence requirements

This Licence is issued under Part V of the Act. Conditions contained within the Licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the Premises/Licensee the intention is not to replicate them in the licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link:

<http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html>

For your Premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.
- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.
- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

You must comply with your licence. Non-compliance with your licence is an offence and strict penalties exist for those who do not comply.



Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.

Licence fees

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non-payment of annual licence fees will result in your licence ceasing to have effect.

Ministerial conditions

If your Premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

Premises description and Licence summary

The Shire of Exmouth (the Shire) has been operating the Qualing Scarp Waste Management Facility (the Facility - previously called Qualing Scarp Waste Disposal Site) under a Registration for a Category 89: putrescible landfill (Registration number R1412/2002/1) since 2002. The Facility is located 11 kilometres (km) from the Exmouth township at Lyndon location 219, Murat Road (Figure 1), and is approximately 28.3 hectares (ha).

The Facility was inspected in June 2013 and was noted as being non-compliant with the acceptance of liquid waste (receiving more than 100 tonnes per annum) and storage of used tyres (more than 100 used tyres were stored at the Facility). The Shire have applied to bury used tyres accepted at the Landfill, and upgrade the landfill to enable operation under Category 64 as per Schedule 1 on the *Environmental Protection Regulations 1987* (the Regulations).

The Shire was granted Works approval W5602/2014/1 on 5 June 2014 for upgrades to the Facility which included construction of a lined facility for the acceptance of liquid waste. Liquid waste facility premises as specified in Schedule 1 of the *Environmental Protection Regulations 1987*. 439.5 tonnes of liquid waste was accepted at the facility in the 2015 calendar year.

The licences and works approvals issued for the Premises

Instrument log		
Instrument	Issued	Description
L6836/1997/1	06/12/2000	Licence re-issue – First licence noted in Industry Licensing System.
L6836/1997/1	05/11/2001	Licence re-issue
R1412/2002/1	08/10/2002	Category 89 Registration issued for the premises. Shire of Exmouth requested to relinquish Licence L6836/1997/2 and operate under a Registration.
W5602/2014/1	05/06/2014	Works Approval issued for construction of Liquid Waste Facility and Category 64 landfill.
L9001/2016/1	21/12/2016	New Licence

Severance

It is the intent of these Licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this Licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this Licence to impose and are not otherwise *ultra vires* or invalid.

END OF INTRODUCTION



Licence conditions

1 General

1.1 Interpretation

1.1.1 In the Licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 For the purposes of this Licence, unless the contrary intention appears:

'Act' means the *Environmental Protection Act 1986*;

'Acceptance Criteria' has the meaning defined in Landfill Definitions;

'ACM' or 'Asbestos Containing Material' means material;

- (a) which contains 0.001% or more of asbestos fibres weight/weight;
- (b) in which fibrous material is able to be detected by stereoscopic light microscopy at a magnification of not less than 10 times and not greater than 40 times; and
- (c) in which the fibrous material is able to be identified as asbestos by polarised light microscopy at a magnification of not greater than 400 times or by a method approved by the Executive Director, Public Health under the *Health Act 1911*.

'AHD' means the Australian height datum;

'Annual Audit Compliance Report' means a report in a format approved by the CEO as presented by the Licensee or as specified by the CEO from time to time and published on the Department's website.

'annual period' means the inclusive period from 1 January until 31 December in the same year;

'asbestos' means the asbestiform variety of mineral silicates belonging to the serpentine or amphibole groups of rock-forming minerals and includes actinolite, amosite, anthophyllite, chrysotile, crocidolite, tremolite and any mixture containing 2 or more of those;

'CEO' means Chief Executive Officer of the Department of Environment Regulation;

'CEO' for the purpose of correspondence means;

Chief Executive Officer
Department Administering the Environmental Protection Act 1986
Locked Bag 33
CLOISTERS SQUARE WA 6850
Email: info@der.wa.gov.au

'Clean Fill' has the meaning defined in Landfill Definitions;

'Contaminated Solid Waste' has the meaning defined in Landfill Definitions;

'designated burning area' means an area of a landfill site that has been designated by the occupier of the site as a designated burning area;



'Department' means the department established under s.35 of the Public Sector Management Act 1994 and designated as responsible for the administration of Division 3 Part V of the *Environmental Protection Act 1986*.

'green waste' means waste that originates from flora;

'hardstand' means a surface with a permeability of 10^{-9} metres/second or less;

'Hazardous Waste' has the meaning defined in Landfill Definitions;

'Inert Waste Type 1' has the meaning defined in Landfill Definitions;

'Inert Waste Type 2' has the meaning defined in Landfill Definitions;

'Landfill Definitions' means the document titled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer of the Department of Environment and Conservation as amended from time to time;

'Licence' means this Licence numbered L9001/2016/1 and issued under the Act;

'Licensee' means the person or organisation named as Licensee on page 1 of the Licence;

'NATA' means the National Association of Testing Authorities, Australia;

'NATA accredited' means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis;

'Premises' means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence;

'Putrescible Waste' has the meaning defined in Landfill Waste Definitions;

'quarantined storage area or container' means a hardstand storage area or sealed-bottom container that is separate and isolated from authorised waste disposal areas and is capable of containing all non-conforming waste and its constituents, these areas must be clearly marked and their access restricted to authorised personnel;

'rehabilitation' means the completion of the engineering of a landfill cell and includes capping and/or final cover;

'Schedule 1' means Schedule 1 of this Licence unless otherwise stated;

'Schedule 2' means Schedule 2 of this Licence unless otherwise stated;

'Special Waste Type 1' has the meaning defined in Landfill Definitions;

'Special Waste Type 2' has the meaning defined in Landfill Definitions;

'spot sample' means a discrete sample representative at the time and place at which the sample is taken;

'tipping area' means the area of the landfill in which waste other than cover material is being deposited;



‘usual working day’ means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia; and

- 1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the standard in force from time to time during the term of this Licence.
- 1.1.4 Any reference to a guideline or code of practice in the Licence means the version of that guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

1.2 Premises operation

- 1.2.1 The licensee shall ensure that stormwater within the premises is diverted away from areas of the premises where there is waste.
- 1.2.2 The Licensee shall only accept waste on to the Premises if:
 - (a) it is of a type listed in Table 1.2.1;
 - (b) the quantity accepted is below any quantity limit listed in Table 1.2.1; and
 - (c) it meets any specification listed in Table 1.2.1.

Table 1.2.1: Waste acceptance

Waste	Quantity Limit	Specification ¹
Clean Fill	Combined total limit of 5 000 tonnes per annual period	None specified.
Contaminated Solid Waste		Must meet the acceptance criteria for Class II landfill.
Inert Waste Type 1		None specified.
Inert Waste Type 2		Tyres and plastic only.
Putrescible Waste (including green waste)		None specified.
Solid Hazardous Waste		Limited to used lead acid batteries, engine oil filters, aerosol cans and empty drums.
Liquid Hazardous Waste		Limited to paint, waste oil and oily wastes (e.g. from oil filters)
Special Waste Type 1		Cement bonded asbestos only. No fibrous asbestos shall be accepted.
Special Waste Type 2		Biomedical / clinical waste that is not radioactive ² .

Note 1: Additional requirements for the acceptance of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

Note 2: Information relating to the classification of radioactive waste can be found in the *Western Australian Radiation Safety Act 1975*.

- 1.2.3 The Licensee shall ensure that where waste does not meet the waste acceptance criteria set out in condition 1.2.1 it is removed from the Premises by the delivery vehicle or, where that is not possible, stored in a quarantined storage area or container and removed to an appropriately authorised facility as soon as practicable.
- 1.2.4 The Licensee shall ensure that wastes accepted onto the Premises are only subjected to the processes set out in Table 1.2.2 and in accordance with any process limits described in that Table.

Table 1.2.2: Waste processing

Waste type(s)	Process	Process limits ^{1,2}
All		<ul style="list-style-type: none"> • Shall only take place within designated landfill trenches



Table 1.2.2: Waste processing		
Waste type(s)	Process	Process limits ^{1,2}
	Disposal of waste by landfilling	<ul style="list-style-type: none"> or cells; No waste shall be temporarily stored or landfilled within 35m from the boundary of the premises; and The separation distance between the base of the landfill and the highest groundwater level shall not be less than 3m.
Hazardous Wastes	Receipt, handling, storage prior to re-use or off-site disposal	<ul style="list-style-type: none"> Waste oil, paint, vehicle batteries must be stored in a fully enclosed bunded area/container.
Clean Fill		None specified.
Contaminated Solid Waste	Receipt, handling and disposal by landfilling	Must meet the acceptance criteria for Class II landfill.
Inert Waste Type1		None specified.
Inert Waste Type 2 - Tyres	Receipt, handling, storage prior to re-use or disposal by landfilling	Tyres to be stored in dedicated tyre cells.
Putrescible Waste	Receipt, handling and storage prior to disposal	None specified.
	Disposal by Burning	<p>Only green waste is to be burnt on site. Green waste shall only be burnt if;</p> <ul style="list-style-type: none"> It has been dried and seasoned for at least 2 months before burning; it takes place in a designated burning area at least 25m from the boundary of any active disposal areas; it takes place in trenches or windrows; it takes place only when an adequate supply of water is available to effectively manage the burning process; and it is free of any contaminant.
Special Waste Type 1 (asbestos waste)	Receipt, handling and disposal by landfilling	<ul style="list-style-type: none"> Only to be disposed of into a designated asbestos disposal area within the landfill; Not to be deposited within 2m of the final tipping surface of the landfill; and No works shall be carried out on the landfill that could lead to a release of asbestos fibres.
Special Waste Type 2 (Biomedical and Clinical Waste)		<ul style="list-style-type: none"> Only to be disposed of into a designated biomedical waste disposal area within the landfill; Not to be deposited within 2m of the final tipping surface of the landfill; and No works shall be carried out on the landfill that could lead to biomedical wastes being excavated or uncovered.



1.2.5 The Licensee shall ensure that cover is applied to waste in accordance with Table 1.2.3 and that sufficient stockpiles of cover are maintained on site at all times.

Table 1.2.3: Cover requirements			
Waste Type	Material	Depth	Timescales
Inert Waste Type 2	Inert Waste Type 1 or clean fill	100mm	As soon as practicable after deposit
Putrescible Wastes	Inert Waste Type 1 or clean fill	150mm	As soon as practicable and not later than the end of the working day
	Inert Waste Type 1 or clean fill	1,000mm	Within 3 months of achieving final waste contours
Special Waste Type 1	Inert Waste Type 1 or clean fill	300mm	As soon as practicable and not later than the end of the working day after deposit.
		1,000mm	As soon as practicable after deposit
Special Waste Type 2	Inert Waste Type 1 or clean fill	300mm	As soon as practicable and not later than the end of the working day after deposit and prior to compaction
	Inert Waste Type 1 or clean fill	1,000mm	As soon as practicable after deposit

1.2.6 The Licensee shall manage the landfilling activities to ensure:

- (a) the size of the tipping face is kept to a minimum and not larger than 30m in length and 2m in height;
- (b) waste is levelled and compacted to ensure all faces are stable and capable of retaining rehabilitation material; and
- (c) rehabilitation of a cell or phase takes place within 6 months after disposal in that cell or phase has been completed.

1.2.7 The Licensee shall install and maintain a sign at the entrance to the Premises which clearly displays the following information:

- (a) hours of operation;
- (b) contact telephone number;
- (c) a warning indicating penalties for people lighting fires; and
- (d) list of materials accepted for recycling and the location of where they can be deposited on the premises.

1.2.8 The Licensee shall take all reasonable and practical measures to ensure that no windblown waste escapes from the Premises and that windblown waste is collected on at least a weekly basis and returned to the tipping area.

1.2.9 The Licensee shall ensure that an unauthorised fire on the Premises is extinguished as soon as possible.



2 Monitoring

2.1 General monitoring

2.1.1 The Licensee shall ensure that:

- (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
- (b) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
- (c) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless indicated otherwise in the relevant table.

2.1.2 The Licensee shall ensure that six monthly monitoring is undertaken at least 5 months apart.

2.2 Monitoring of inputs and outputs

2.2.1 The Licensee shall undertake the monitoring in Table 2.2.1 according to the specifications in that table.

Table 2.2.1 Monitoring of inputs and outputs				
Input/Output	Parameter	Units	Averaging Period	Frequency
Waste inputs	Clean Fill, Contaminated Solid Waste, Hazardous Wastes, Inert Waste Type 1, Inert Waste Type 2, Putrescible Waste, Green Waste, Special Waste Type 1, and Special Waste Type 2	m ³	N/A	Each load arriving at the Premises
Waste outputs	Waste type as defined in the Landfill Definitions			Each load leaving or rejected from the Premises

2.3 Ambient environmental quality monitoring

2.3.1 The Licensee shall undertake the monitoring in Table 3.8.1 according to the specifications in that table.

Table 2.3.1: Monitoring of ambient groundwater quality				
Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
MB1, MB2, MB4	pH ¹	pH units	Spot sample	Six monthly
	Electrical conductivity	µS/cm		
	Standing water level (SWL) ²	m AHD (and mbgl)		
	Biochemical oxygen demand	mg/L		
	Reactive phosphorus			
Total phosphorus				



Table 2.3.1: Monitoring of ambient groundwater quality				
Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
	Chloride			
	Total recoverable hydrocarbons			
	Total Nitrogen			
	Nitrate- nitrogen			
	Ammonia-nitrogen			
	Hexavalent chromium			
	Total chromium			
	Cadmium			
	Cobalt			
	Copper			
	Mercury			
	Molybdenum			
	Nickel			
	Lead			
	Zinc			

Note 1: In-field non-NATA accredited analysis permitted.

Note 2: SWL shall be determined prior to collection of other water samples.



3 Information

3.1 Records

- 3.1.1 All information and records required by the Licence shall:
- (a) be legible;
 - (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
 - (c) except for records listed in 3.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
 - (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
 - (i) off-site environmental effects; or
 - (ii) matters which affect the condition of the land or waters.
- 3.1.2 The Licensee must submit to the CEO within 90 days after the end of the annual period, an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the Conditions in this Licence for the Annual Period.
- 3.1.3 The Licensee shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

3.2 Reporting

- 3.2.1 The Licensee shall submit to the CEO an Annual Environmental Report within 60 calendar days after the end of the annual period. The report shall contain the information listed in Table 3.2.1 in the format or form specified in that table.

Table 3.2.1: Annual Environmental Report		
Condition or table (if relevant)	Parameter	Format or form¹
Table 2.2.1	Monitoring of inputs and outputs	Tabular form
Table 2.3.1	Monitoring of ambient groundwater quality	Tabular form
-	Summary of any failure or malfunction of any pollution control equipment and any incidents that have occurred during the annual period and any action taken	None specified
3.1.3	Complaints summary	None specified

Note 1: Forms are in Schedule 2

- 3.2.2 The Licensee shall ensure that the Annual Environmental Report also contains an assessment of the information contained within the report against previous monitoring results.

3.3 Notification

- 3.3.1 The Licensee shall ensure that the parameters listed in Table 3.3.1 are notified to the CEO in accordance with the notification requirements of the table.



Table 3.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement¹	Format or form
1.2.9	Unauthorised fire	Within 14 days of unauthorised fire	Not Specified

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act



Schedule 1: Maps

Premises map

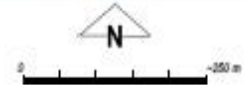
The Premises is shown in the map below. The pink line depicts the Premises boundary.



LEGEND

- Cadastral
- Local Government Authorities
- Road Centrelines
- Hydrography, linear (hierarchy)
- Coastal Waterlines
- Estuarine
- Infrastructure
- Insignificant Tids (cont)
- Inundated Area
- Mainstream
- Major River
- Major Tids
- Minor River
- Minor Tids
- Pole-Drainage Line
- Significant Stream
- Town Planning Scheme Zones
- Towns (cont)

- A
- B
- C
- Mining Tenements
- Dampier and Extensions 50cm Orthomosaic - Landgate 2008
- Newman 1.4m Orthomosaic - Landgate 2003
- Busselton Shire 2014 20cm orthomosaic
- Exmouth 1.4m Orthomosaic - Landgate 2000



Scale 1:2704
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

Prepared by: Christophers
Prepared for:
Date: 14/10/2018 2:24:58 PM

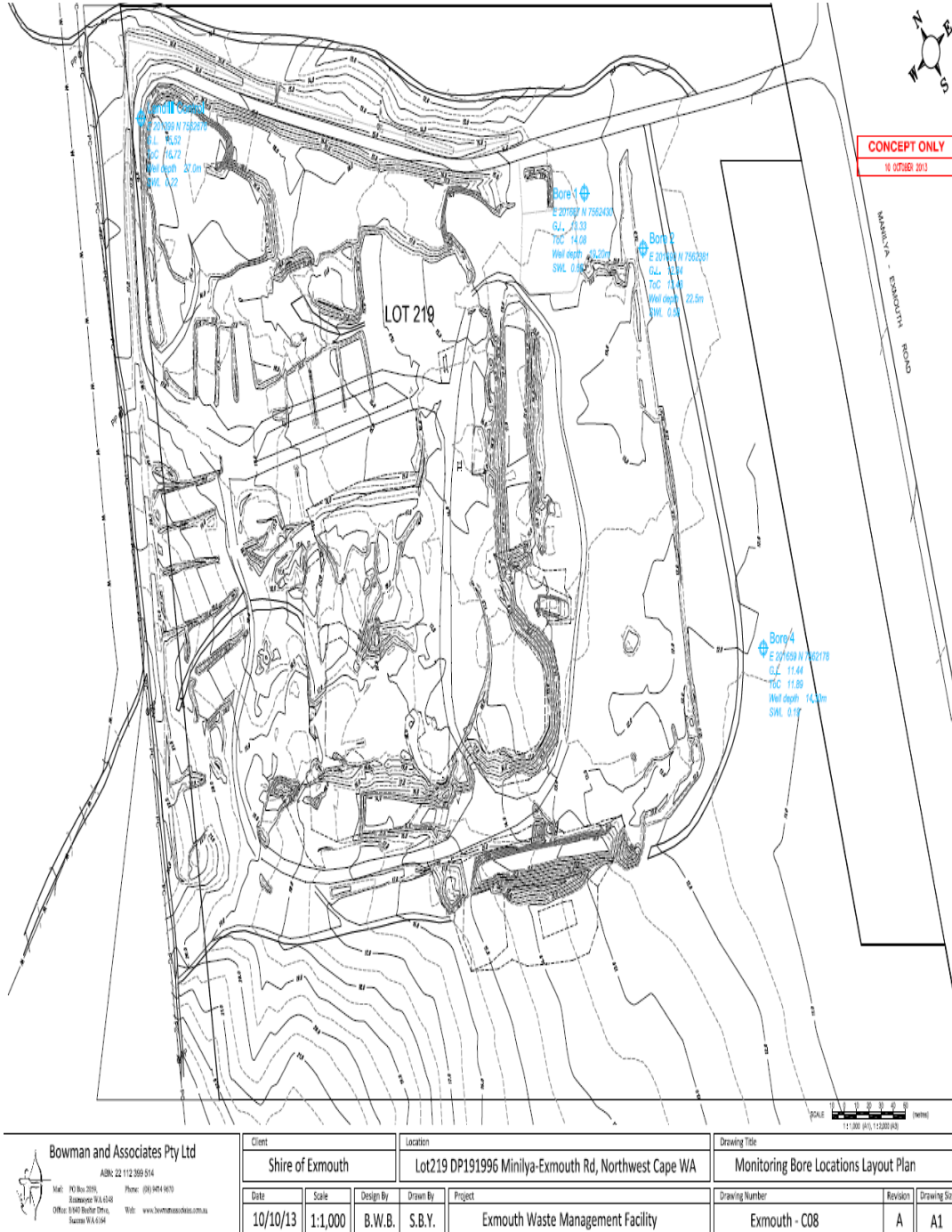
Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.





Map of monitoring locations

The locations of the monitoring points defined in Table 2.3.1 are shown below.





Map of site layout

The site layout is shown below.





Decision Document

Environmental Protection Act 1986, Part V

Proponent: Shire of Exmouth

Licence: L9001/2016/1

Registered office: 22 Maidstone Crescent
EXMOUTH WA 6707

Premises address: Qualing Scarp Waste Management Site
Crown Reserve 43252
EXMOUTH WA 6707
Being Lot 219 on Plan 191996

Issue date: Thursday, 22 December 2016

Commencement date: Monday, 26 December 2016

Expiry date: Thursday, 25 December 2036

Decision

Based on the assessment detailed in this document the Delegated Officer, has decided to issue a Licence. The Delegated Officer considers that in reaching this decision, all relevant considerations have been taken into account.

Decision Document prepared by: Chris Slavin
Licensing Officer

Decision Document authorised by: Steve Checker
Delegated Officer



Contents

Decision Document	1
Contents	2
1 Purpose of this Document	2
2 Administrative summary	3
3 Executive summary of proposal and assessment	4
4 Decision table	6
5 Advertisement and consultation table	16
6 Risk Assessment	17

1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.



2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/>	New Licence <input checked="" type="checkbox"/>
	Licence amendment <input type="checkbox"/>	Works Approval amendment <input type="checkbox"/>
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	57	1 000 used tyres
	64	5 000 tonnes per annual period
Application verified	Date: 12/10/20016	
Application fee paid	Date: 28/10/2016	
Works Approval has been complied with	Yes <input type="checkbox"/>	No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Compliance Certificate received	Yes <input type="checkbox"/>	No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Commercial-in-confidence claim	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Commercial-in-confidence claim outcome	N/A	
Is the proposal a Major Resource Project?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
		Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
		Ministerial statement No: EPA Report No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
	Department of Water consulted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises within an Environmental Protection Policy (EPP) Area	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
If Yes include details of which EPP(s) here.		
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
If Yes, include details here, eg Site is subject to SO ₂ requirements of Kwinana EPP.		



3 Executive summary of proposal and assessment

1. Background

The Shire of Exmouth (the Shire) has been operating the Qualing Scarp Waste Management Site (the Landfill) under a Registration for a Category 89: putrescible landfill (Registration number R1412/2002/1). The Landfill is located 11 kilometres (km) from the Exmouth township at 219, Murat Road and is approximately 28.3 hectares (ha). The Landfill's operating hours for waste acceptance are Monday to Friday 8:00am to 11:00am. The Landfill is open on Saturday, Sunday and Public Holidays between 8:00am and 1:00pm

The Landfill was inspected in June 2013 and was noted as being non-compliant with the acceptance of liquid waste (receiving more than 100 tonnes per annum) and storage of used tyres (more than 100 used tyres were stored at the Landfill). The Shire would like to store used tyres accepted at the Landfill, and upgrade the landfill to enable operation under Category 64 as per Schedule 1 on the *Environmental Protection Regulations 1987* (the Regulations).

The Shire was granted Works approval W5602/2014/1 on 5 June 2014 for upgrades to the Landfill which included construction of a lined facility for the acceptance of liquid waste at the Liquid Waste Facility (LWF). 439.5 tonnes of liquid waste (septage and grease trap waste) was accepted at the LWF in the 2015 calendar year. However, the Shire has recently stated that they will not be able to complete the new LWF as per the specifications of the Works Approval. DER has not authorised the Shire to accept septage waste or grease trap waste.

2. Site Operations

The application details the following: *The placement of waste within the Landfill is similar to normal operations for rural landfills. Incoming waste will be screened by the attendant at the office to ensure it meets acceptance criteria and to direct the waste to the appropriate disposal area. The screening process will also collect data on the volume of waste being deposited as no weighbridge is present at the facility.*

Two separate sections of the landfill are to continue being utilised for active landfilling at any time. One is the open face for domestic and dry commercial waste disposal, and construction and industrial waste (Public Tipping Face), while the other is a trench used for the disposal of municipal solid waste and other putrescible waste collected by commercial rubbish truck operators (the Food Hole). The Food Hole is utilised for putrescible and other potentially odorous wastes (e.g. fish offal). The Food Hole is a pit that was constructed as a trench and deposited waste is to be covered daily. The depth of cover over the waste deposited will continue to be at least 230 mm. The cover material is typically soil excavated on site. An intermediate cap (thickened daily cover material) is placed over completed food holes that will be left for extended periods of time prior to being covered with residential dry waste.

Putrescible waste is placed in the base of the food holes and covered with soil at the end of each day. All non-putrescible waste is landfilled at the public tipping area and progressively covered with soil once a 2 m vertical height is attained. Each food hole holds approximately 6 months of putrescible waste. Available capacity in the food hole area is expected to last approximately 15 years.

As per Works Approval W5602/2014/1 used tyres are now disposed of into one of two dedicated tyre cells. The tyres are placed in each cell at a depth of 3m. A geofabric is placed on top of the tyres to of



the tyres to support placement of top soil and to aid the removal of tyres in future should recovery options become viable. The tyre cells will be capped with 0.8 m of soil on top of the geofabric.

Disposal of asbestos occurs in a separate location to that of the main landfill. The attendant at the landfill office directs clients to the current asbestos disposal area. Burial of asbestos occurs as soon as practically possible with a dense, inert and incombustible material and to a depth of at least 1 m. The attendant records the disposal in an asbestos delivery book located at the Landfill. The record is labelled in Universal Transverse Mercator (UTM) easting and northing coordinates.

Asbestos will be delivered to the site in a covered, leak proof or lined vehicle. Asbestos will be wrapped in heavy duty polyethylene (0.2mm thick black plastic), or otherwise contained to prevent airborne fibres. Asbestos will also be double wrapped within the plastic and labelled 'CAUTION ASBESTOS'.

All clean inert Construction and Demolition waste is taken and stockpiled in a separate location to that of the landfill. The stockpiles are kept for use as fill material where deemed suitable and if no reuse option is available, landfilled over areas of prior landfilling.

A public salvage area is provided next to the landfill office. Within this area, landfill users can lay down items that are considered by the attendant to have a useful remaining life. The intention of the public salvage area is to promote the reuse of household furniture, items and surplus building materials by displaying them in a location away from the waste tipping areas. This allows landfill users to view items and make selection in a safer environment rather than scavenging at the tipping face.

Greenwaste is checked by the attendant at the gate and directed to the area for greenwaste disposal. The current practice is to seasonally burn greenwaste in dedicated burning pits.

3. Siting in environmental context

The Landfill is situated on limestone terrain overlain with alluvial pindan sand deposits which become thicker towards the east of the site and further away from the nearby Cape Range to the west. There are no surface water bodies present on the site, the nearest surface water body is the Exmouth Gulf coastline 750m east of the Landfill. Groundwater level at the Landfill is between 11.7 – 16.5 metres below ground level (mbgl). The Exmouth Water Reserve Public Drinking Water Source Area (PDWSA) and the Exmouth Water Reserve Protection Zone is 900m and 1.3km west of the Landfill respectively. Groundwater flows east of the Premises towards the Landfill towards the Exmouth Gulf. The nearest sensitive receptor is a local residence located 700m southeast of the Landfill.

4. Potential emissions

The potential emissions from the Landfill include odour from the acceptance and burial of putrescible waste, dust uplift from earthworks machinery and vehicular movements throughout the landfill.



4 Decision table

The overarching legislative framework of this assessment is the Environmental Protection Act 1986 (EP Act) and the Environmental Protection Regulations 1987 (EP Regulations). DER Guidance Statements which inform the assessment in accordance with the legislation include:

- DER Guidance Statement: Regulatory Principles (July 2015)
- DER Guidance Statement: Setting Conditions (October 2015)
- DER Guidance Statement: Licence and works approvals process (September 2015)
- DER Guidance Statement: Setting Conditions (October 2015)
- DER Guidance Statement: Land Use Planning (October 2015)
- DER Guidance Statement: Licence Duration (November 2015)

DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Premises operation	L1.2.1 – L1.2.2 L1.2.5 – L1.2.8 L1.2.12	<p><u>Emission Description</u> <i>Emission:</i> Stormwater potentially contaminated with putrescible and hazardous waste. <i>Impact:</i> Contamination of surrounding land, groundwater and surface water drainage systems. The minimum depth to groundwater is approximately 11.7mbgl beneath the Landfill area. The nearest surface water body is the Exmouth Gulf 750m east. <i>Controls:</i> Stormwater bunds divert stormwater away from active landfilling areas of the Landfill. Stormwater flow at the Landfill is managed by natural and manmade drainage lines which follow site contours before joining the existing drainage lines outside the Landfill. The Shire will also ensure that any water that comes in contact with landfill waste is maintained on the premises.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Medium</p> <p><u>Regulatory controls</u> Condition 1.2.1 has been added to the Licence to ensure the Shire diverts stormwater</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i></p> <p><i>Environmental Protection (Unauthorised Discharges) Regulation 2004</i></p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>onsite to prevent water becoming contaminated with waste which may increase potential landfill leachate.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Rare <i>Risk Rating:</i> Low</p> <p><u>Emission Description</u> <i>Emission:</i> Smoke emissions from unauthorised fire at the premises due to disposal of incompatible waste types. <i>Impact:</i> Toxic smoke may cause nuisance impacts or exacerbate respiratory issues at nearby receptors. Contamination of localised air shed with toxic fumes from the burning of plastics Smoke may impact local flora and fauna. The nearest sensitive receptor is a local residence located 700m southeast of the Landfill. There are no adjacent activities or businesses to the landfill. <i>Controls:</i> The Shire have implemented a Landfill Management Plan (LMP) for the premises. The LMP outlines Emergency response procedures and responsibilities for unauthorised fires at the Landfill, which include, but not limited to:</p> <ul style="list-style-type: none"> • Water truck available at all times to extinguish fires; • A 3m firebreak around the entire perimeter of the site; and • All onsite plant equipment fitted with fire suppression systems. <p><u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Medium</p> <p><u>Regulatory Controls</u></p>	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>Condition 1.2.4 outlines that tyres need to be stored in dedicated below ground tyre cells at the premise, reducing the risk of a tyre fire.</p> <p>Condition 1.2.4 outlines that waste shall only be disposed of within designated landfill trenches or cells. This will ensure that any unauthorised fire will be contained within a confined area. Condition 1.2.4 also outlines that batteries are to be stored in a fully enclosed bunded area/container to prevent battery acid gaining access to the environment and potentially starting an unauthorised fire.</p> <p>Condition 1.2.5 has been added to the Licence to ensure that waste is covered regularly to minimise exposed waste.</p> <p>Condition 1.2.6 has been added to the Licence to ensure the tipping face is kept to a manageable size to ensure waste is disposed of efficiently.</p> <p>Condition 1.2.7 has been added to the licence to ensure the Landfill is fenced to prevent unauthorised access and signage indicating penalties for people lighting fires.</p> <p>Condition 1.2.8 has been added to the licence to mitigate impacts from windblown waste.</p> <p>Condition 1.2.9 has been added to the Licence to ensure the Shire extinguishes an unauthorised fire as soon as possible to prevent smoke emissions.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Rare <i>Risk Rating:</i> Low</p>	
Fugitive emissions	L2.3.1	<p><u>Emission Description</u> <i>Emission:</i> Dust emissions from landfilling operations and vehicle (including earth works machinery) operating at the premises.</p>	S49 of the <i>Environmental Protection Act</i>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p><i>Impact:</i> Dust can negatively impact the health, welfare and amenity of those on nearby properties. The nearest sensitive receptor is a local residence located 700m southeast of the Landfill. There are no adjacent activities or businesses to the Landfill.</p> <p><i>Controls:</i> The Shire have implemented the following dust mitigation measures:</p> <ul style="list-style-type: none"> • Excavated materials as part of earth works activities will be stockpiled so not to cause dust impacts offsite; • A water cart is available on the premises to reduce dust emissions • Speed limits are in place at the Landfill; and • Landfill staff regularly monitor dust emissions. <p><u>Risk Assessment</u> <i>Consequence:</i> Slight <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low.</p> <p><u>Regulatory Controls</u> Fugitive dust conditions will not be included in the Licence in accordance with Departmental reform as published on DER’s website under “<i>Administrative changes implemented within the Department of Environment Regulation</i>” www.der.wa.gov.au. Dust emissions can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i>. The Landfill has been operating since 1997 and during this time DER has no record of any complaints regarding fugitive dust.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Slight <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p> <p><u>Emission Description</u></p>	1986



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p><i>Emission:</i> Leachate from proposed landfilling operations. <i>Impact:</i> Contamination of surrounding land and groundwater. Potential impacts on the surrounding groundwater ecology and quality. Contamination of surrounding land, groundwater and surface water drainage systems. The minimum depth to groundwater is approximately 11.7mbgl beneath the Landfill area. The nearest surface water body is the Exmouth Gulf 750m east. The Exmouth Water Reserve PDWSA and the Exmouth Water Reserve Protection Zone is 900m and 1.3km west of the Landfill respectively. Groundwater flows to the east of the premises away from the Exmouth Water Reserve PDWSA and the Exmouth Water Reserve Protection Zone. <i>Controls:</i> The Shire have not proposed any mitigation measures for landfill leachate. The Gascoyne region has an arid and low rainfall climate. The Shire expect to landfill less than 5,000 tonnes of waste per year, and as such leachate volumes are expected to be limited. Historic groundwater monitoring submitted by the Shire shows that there is a slight increase in Total Nitrogen levels.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Medium</p> <p><u>Regulatory Controls</u> Condition 1.2.4 stipulates a 3m separation distance between the base of the landfill and the highest groundwater level to reduce the potential for leachate to percolate through the soil profile to groundwater.</p> <p>Condition 2.3.1 has been added to the Licence for the Shire to monitor groundwater at the premises. The Delegated Officer considers groundwater monitoring is required to monitor potential leaching of landfill waste to groundwater. DER may impose leachate specific conditions if groundwater contamination is evident.</p> <p><u>Residual Risk</u></p>	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p><i>Consequence:</i> Moderate <i>Likelihood:</i> Rare <i>Risk Rating:</i> Medium</p>	
Odour	L1.2.5 – L1.2.7	<p><u>Emission Description</u> <i>Emission:</i> Odour from receipt and disposal of putrescible wastes and potential temporary storage of non-conforming waste types. <i>Impact:</i> Odour can negatively impact the health, welfare and amenity of those on nearby properties. The nearest sensitive receptor is a local residence located 700m southeast of the Landfill. There are no adjacent activities or businesses to the Landfill. <i>Controls:</i> The Shire have implemented the following odour mitigation measures:</p> <ul style="list-style-type: none"> • All wastes delivered to the site will be contained in a covered vehicle to minimise potential odour; • Odorous waste will be covered immediately upon receipt; and • Only two tipping faces for solid waste will be active at any time, one for dry waste and one for putrescible waste <p><u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Medium</p> <p><u>Regulatory Controls</u> Condition 1.2.4 stipulates that landfilling shall only take place in designated landfill trenches or cells to prevent odorous waste being exposed at ground level.</p> <p>Condition 1.2.5 has been added to the Licence to ensure all putrescible wastes are covered by the end of each working day to minimise odour.</p> <p>Condition 1.2.7 (c) has been added to the Licence to ensure trenches or cells have been rehabilitated within 6 months of been completed.</p>	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>The Landfill has been operating since 1997 and during this time DER has no record of any complaints regarding odour</p> <p><u>Residual Risk</u> Consequence: Minor Likelihood: Rare Risk Rating: Low</p>	
Noise		<p><u>Emission Description</u> Emission: Noise emissions from trucks entering and exiting the Landfill and from earthworks machinery. Impacts: Noise can cause a nuisance for people on nearby properties and may disturb native fauna. The nearest sensitive receptor is a local residence located 700m southeast of the Landfill. There are no adjacent activities or businesses to the Landfill. Controls: The Shire have not proposed any specific noise control measured for the Landfill.</p> <p><u>Risk Assessment</u> Consequence: Slight Likelihood: Rare Risk Rating: Low</p> <p><u>Regulatory Controls</u> Noise conditions will not be included in the Licence. Noise can be sufficiently regulated under the <i>Environmental Protection (Noise) Regulations 1997</i>. The Landfill has been operating since 1997 and during this time DER has not received a complaint regarding noise.</p> <p><u>Residual Risk</u> Consequence: Slight Likelihood: Unlikely</p>	<i>Environmental Protection (Noise) Regulations 1997</i>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<i>Risk Rating: Low</i>	
Monitoring general	L2.1.1 – L2.1.2	<p>Condition 2.1.1 has been added to the Licence to ensure the Shire collects all groundwater samples in accordance with the relevant Australian Standard and sent to a laboratory with NATA accreditation.</p> <p>Condition 2.1.2 has been added to the Licence to ensure the Shire monitors 6 monthly groundwater at least 5 months apart so that representative samples are taken.</p>	
Monitoring of inputs and outputs		Condition 2.2.1 has been added to the Licence for the licensee to monitor inputs and outputs. This information is required to determine compliance with condition 1.2.1 throughput limits and validate annual fee submissions.	
Ambient quality monitoring	L2.3.1	<p><u>Emission Description</u> <i>Emission:</i> Seepage of partially treated septage waste and grease trap waste historically discharged into two unlined ponds (not currently authorised). <i>Impact:</i> Contamination of surrounding land, groundwater and surface water drainage systems. The minimum depth to groundwater is approximately 11.7mbgl beneath the Landfill area. The nearest surface water body is the Exmouth Gulf 750m east. The Exmouth Water Reserve PDWSA and the Exmouth Water Reserve Protection Zone is 900m and 1.3km west of the Landfill respectively. Groundwater flows to the east of the premises away from the Exmouth Water Reserve PDWSA and the Exmouth Water Reserve Protection Zone. <i>Controls:</i> The Shire does not propose any controls for the unlined septage ponds. The Shire was granted a works approval (W5602/2014/1) on 5 June 2014 for upgrades to the Landfill, which included construction of a lined facility for the acceptance of liquid waste. 439.5 tonnes of liquid waste were accepted at the facility in the 2015 Calendar year. It was expected that a licence application for Category 61 would be submitted following completion of the works. On 7 April 2016, the Shire advised DER that they would not be progressing with construction the liquid waste facility pending construction of a new Water Corporation wastewater treatment plant in Exmouth. To</p>	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>date, DER is yet to receive a works approval application from the Water Corporation for the construction of the proposed wastewater treatment plant.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Possible <i>Risk Rating:</i> Medium</p> <p><u>Regulatory Controls</u> Condition 2.3.1 has been added to the Licence for the Shire to conduct six monthly groundwater monitoring. The Delegated Officer considers this condition to be necessary in order to determine what impact the unlined septage ponds are having on groundwater quality in the area. Historic groundwater monitoring submitted by the Shire shows that there is a slight increase in Total Nitrogen levels.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Medium</p>	
Information		<p>Condition 3.1.1 has been added to the Licence to ensure records that are required under this licence, such as ensuring they are legible and retained for 6 years, which assists DER in regulating the conditions of this licence.</p> <p>Condition 3.1.2 has been added to the Licence which requires the Shire to undertake an audit of their operations against the conditions of the licence and to report on this compliance in an Annual Audit Compliance Report (AACR). This condition assists DER in regulating the occupier's compliance with licence conditions and allows and opportunity for DER to review the occupier's environmental performance.</p> <p>Condition 3.1.3 has been added to the Licence to require a complaints management system to be implemented where the occupier can internally address any issues that</p>	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>arise from premises operations. This condition is required as per the risk assessments conducted above for nuisance emissions. DER will review these complaints as reported in the Annual Environmental Report (AER) and will consider whether a reassessment of any regulatory controls is required to address any complaints.</p> <p>Condition 3.2.1 has been added to the Licence to require the Shire to submit an Annual Environmental Report (AER). The AER is required to provide results for the monitoring of inputs/output, monitoring of groundwater and a summary of malfunction of pollution control equipment or any environmental incidents. DER reviews all of the data provided in the AER to assess compliance with the licence conditions and to monitor the environmental impacts from the premises.</p> <p>Condition 3.3.1 has been added to the Licence which requires the Shire to notify the CEO if there is an unauthorised fire. The notification required under this condition give DER appropriate notice so that DER can determine if any further action is required to address the incident.</p>	
Licence Duration	N/A	The Shire has operated the Landfill since 1998. Given the low - medium risk of the premises, DER will issue the Licence for a 20 year period. The Chief Executive Officer may review the duration of the Licence in the future.	<i>DER Guidance Statement: Licence Duration (November 2015)</i>



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
07/11/2016	Application advertised in West Australian (or other relevant newspaper)	N/A	N./A
15/12/2016	Proponent sent a copy of draft instrument	Minor comment outlining that monitoring of inputs and outputs will need to be recorded in m ³ Other minor queries submitted regarding structure of the Licence.	Condition 2.2.1 in the Licence amended accordingly. The Shire was conducted on 19 December 2016 to discuss Licence structure



6 Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

Table 1: Emissions Risk 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