



Mr John Charles Bunn
Marbelup Pork
71 Redmond South Rd
REDMOND WA 6327

Dear Mr Bunn

ENVIRONMENTAL PROTECTION ACT 1986: LICENCE GRANTED

Premises

Marbelup Pork
Location number 3426, Redmond South Rd
Licence Number: L8809/2014/1

A licence under the *Environmental Protection Act 1986* (the Act) has been granted for the above premises. The Department of Environment Regulation will advertise the issuing of this licence in the public notices section of *The West Australian* newspaper.

The licence includes attached conditions. Under section 58(1) of the Act, it is an offence to contravene a condition of a licence. This offence carries a penalty of up to \$125,000 and a daily penalty of up to \$25,000.

In accordance with section 102(1)(c) of the Act, you have 21 days to appeal the conditions of the licence. Under section 102(3)(a) of the Act, any other person may also appeal the conditions of the licence. To lodge an appeal contact the Office of the Appeals Convenor on 6467 5190 or by email at admin@appealsconvenor.wa.gov.au.

Where a licence is issued for more than one year it requires payment of an annual fee and will cease to have effect if the fee is unpaid. It is the occupier's responsibility to lodge a fee application and pay the annual fee in sufficient time to avoid incurring a late payment fee and for processing to be completed before the licence anniversary date.

If you have any queries regarding the above information, please contact Lesley Hart on (08) 98 424 553.

Yours sincerely

Ed Schuller
Officer delegated under section 20
of the *Environmental Protection Act 1986*

9 October 2014



Licence

Environmental Protection Act 1986, Part V

Licensee: John Charles Bunn

Licence: L8809/2014/1

Registered office: 71 Redmond South Rd
REDMOND WA 6327

ACN: N/A

Premises address: Marbelup Pork
71 Redmond South Rd
REDMOND WA 6327
Being Lot 3426 on Plan 80606 as depicted in Schedule 1.

Issue date: Thursday, 9 October 2014

Commencement date: Friday, 10 October 2014

Expiry date: Monday, 9 October 2017

Prescribed premises category

Schedule 1 of the *Environmental Protection Regulations 1987*

Category number	Category description	Category production or design capacity	Approved premises production capacity
2	Intensive Piggery: premises on which pigs are fed, watered and housed in pens.	1 000 animals or more	1 000 animals at any one time

Conditions

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

Officer delegated under section 20
of the *Environmental Protection Act 1986*



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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 works with the business owners, community, consultants, industry and other representatives to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitor and audit compliance with works approvals and licence conditions, take enforcement action as appropriate and develop and implement 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.

The National Environmental Guidelines for Piggeries, 2nd Edition, published by Australia Pork Limited 2010 also set out relevant guidelines and represent best practice for piggeries.

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 meaning that it will no longer be valid and you will need to apply for a new licence for your Premises.

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 proponent owns and currently operates an intensively housed sow farrow to finish piggery on his 64 hectare property, located approximately 1.4 km south of the small rural township of Redmond and within the upper catchment of Marbellup Brook. The piggery was first established on the Premises in 1987 as a 100 sow breeder operation, with the wastewater treatment pond being built in 1992/1993 without a Works Approval and prior to any registration or licensing of the Premises. The Premises were first licenced in 1994. Annual licences held from 1994 to 1997 restricted pig numbers to a maximum of 1100 pigs at any one time. However, on the basis of pig numbers remaining below 1,000 the Licensee applied for and obtained a Registration under Prescribed Premises Schedule 1, Part 2, Category 69: Intensive Piggery in December 1997 (R905). A Registration restricts total pig numbers at any one time to less than 1000 pigs and any proposed increases in pig numbers would require a works approval and licence (Category 2) to be applied for. The piggery has continued to operate under Registration R905 since 1997.

The original and current planning consent to operate the piggery was approved by the local council on 24 April 1996 and limits the piggery to 150 sows. The City of Albany received a planning proposal from the proponent in November 2001 to expand the sow numbers to 300 which was never formally approved, with the proponent advised by the then Department of Environment Protection that the premises would require a licence should all the required approvals proceed. Expansion of the premises apparently proceeded, including the construction of an additional pig shed without City of Albany planning approval or a Works Approval being obtained. Further unapproved expansion has occurred since December 2010, resulting in a piggery with a capacity to house 1,200 pigs at any one time including the capacity to house 200 breeding sows.

A compliance inspection carried out by DER in January 2014 revealed that 1190 pigs were being kept on the premises 191 in excess of that permitted by Registration R905. The proponent was subsequently advised to reduce the number of pigs to below 1000 or apply for a licence for the piggery's capacity in excess of 999 pig places. The proponent elected to lodge this licence application.

The nearby residential receptors include several rural residences approximately 875m SW, 950m east, 1.0km N/NE and 1.6km south of the piggery and residences in the nearby township of Redmond 1.4km N/NW of the Premises. The EPA Guidance Statement # 3 Separation Distances Between Industrial and Sensitive Land Uses recommends a separation distance of 3500m for odour and noise impacts from intensive piggeries that hold between 500 and 5000 pigs, indicating that this piggery may not be appropriately located relative to the Redmond town site which lies well within the recommended buffer.

The Marbellup Brook flows through an adjacent property and lies approximately 300m east and 430m south of the wastewater treatment pond. The Marbellup Brook has been identified as a future potential drinking water supply for Albany and is subject to management requirements identified in the Marbellup Brook Catchment Area Drinking Water Source Protection Plan and priority two (P2) areas.

Piggery wash down water and wastewater, including manure solids, is collected through slatted floors and channelled to a concrete holding tank (sump), which is pumped into a single clay lined wastewater pond (14,450m³ capacity excluding a 500mm freeboard) for treatment. There is no solids separation of the wastewater stream prior to disposal to the pond. Wastewater in the holding tank is mixed with an agitator and then pumped via a pvc pipeline to the wastewater pond on a regular basis. Water from this same pond is currently pumped back to the flush water tanks and is recycled for flushing the dry sow, weaner/grower and finisher sheds.



Over its years of operation the piggery has been the subject of numerous odour complaints from several nearby residents, including residents from Redmond town site. The Premises have been expanded without all the necessary local government and environmental regulatory departmental approvals. The main emissions at the premises relate to inadequate effluent treatment and disposal and resultant odour emissions. This licence application is for the operation of an existing facility that has been operating under Registration R905, above the pig capacity limit that triggers a licence and to regulate the emissions and discharges that are occurring. The current solid waste management and wastewater treatment and disposal operations do not meet the National Environmental Guidelines for Piggeries 2010.

The Licence seeks to address the operational and emissions issues through the limitation of total pig numbers including bringing sow numbers in line with limitations of the existing planning scheme consent No. 95/134, along with setting improvement conditions to bring the premise operations in line with best practice management as identified in the National Environmental Guidelines for Piggeries 2010.

Any proposed changes to the 1000 pig limit or changing the piggery operations (from the assessed 150 sow, farrow to finish piggery) and thus the nature and quantity of wastes being produced, will need to be assessed and approved through a works approval including an amendment to the Planning Scheme Consent.

The licences and works approvals issued for the Premises since 08/03/1994 are:

Instrument log		
Instrument	Issued	Description
L4914	08/03/1994	New application
L5760	04/04/1995	Licence renewal
L6679	11/07/1996	Licence renewal
R905	01/12/1997	Changed to Registration
L8809/2014/1	09/10/2014	New licence issued in REFIRE format

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*;

'AHD' means the Australian height datum;

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

'ARI' means the Annual Recurrence Interval for rainfall applicable to the premises available from the Bureau of Meteorology;

'AS 1289.6' means the Australian Standard AS 1289.6 *Methods of testing soil for engineering purposes*;

'AS/NZS 5667.1' means the Australian Standard AS/NZS 5667.1 *Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples*;

'AS/NZS 5667.11' means the Australian Standard AS/NZS 5667.11 *Water Quality – Sampling – Guidance on sampling of groundwaters*;

'averaging period' means the time over which a limit or target is measured or a monitoring result is obtained;

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

'CEO' for the purpose of correspondence means;

Manager Licensing (South Coast)
Department of Environment Regulation
120 Albany Hwy
ALBANY WA 6330
Telephone: (08) 9842 4567
Facsimile: (08) 9841 7105
Email: southcoast@der.wa.gov.au;

'code of practice for the storage and handling of dangerous goods' means document titled "Storage and handling of dangerous goods: Code of Practice" published by the Department of Mines and Petroleum, as amended from time to time;

'controlled waste' has the definition in *Environmental Protection (Controlled Waste) Regulations 2004*;

'dangerous goods' has the meaning defined in the *Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007*;

'environmentally hazardous material' means material (either solid or liquid raw materials, materials in the process of manufacture, manufactured products, products used in the manufacturing process, by-products and waste) which if discharged into the environment from or within the premises may cause pollution or environmental harm. Note: Environmentally hazardous materials include dangerous goods where they are stored in quantities below placard quantities. The storage of dangerous goods above placard quantities is regulated by the Department of Mines and Petroleum;



'freeboard' means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point;

'fugitive emissions' means all emissions not arising from point sources identified in Section 2.5;

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

'leachate' means liquid released by, or water that has percolated through, waste and which contains some of the waste's constituents;

'Licence' means this Licence numbered L8809/2014/1 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;

'NEGP' means the current version of the National Environmental Guidelines for Piggeries;

'pig' means any weaned pig;

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

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

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

'sensitive land uses' means the land uses defined under section 2.3 of the *Environmental Protection Agency Guidance Statement 3 – Separation Distances between Industrial and Sensitive Land Uses*.

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

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

'µS/cm' means micro Siemens per centimetre;

'wastewater treatment pond' means Wastewater Pond 1 as depicted in the map of storage locations in Schedule 1.

"wastewater treatment system" means the holding tank, wastewater treatment ponds and associated drains and pipes

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 General conditions

1.2.1 Nothing in the Licence shall be taken to authorise any emission that is not mentioned in the Licence, where the emission amounts to:

- (a) pollution;
- (b) unreasonable emission;
- (c) discharge of waste in circumstances likely to cause pollution; or



(d) being contrary to any written law.

1.2.2 The Licensee shall operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.

1.2.3 The Licensee, except where storage is prescribed in section 1.3, shall only store environmentally hazardous materials if:

- (a) they are stored in accordance with the code of practice for the storage and handling of dangerous goods; or
- (b) they are stored within compounds or vessels that:
 - (i) were constructed prior to 09/10/2014;
 - (ii) have not previously met the requirements of conditions 1.2.3(a); and
 - (iii) are the subject of improvement requirements IR5 and IR6 in section 4.

1.2.4 The Licensee shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.

1.2.5 The Licensee shall implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the Premises¹.

Note1: The Environmental Protection (Unauthorised Discharges) Regulations 2004 make it an offence to discharge certain materials into the environment.

1.3 Premises operation

1.3.1 The Licensee shall ensure that all wastewaters from piggery operations including wash down water, by-products wastewater and contaminated run-off are directed to the wastewater treatment system.

1.3.2 The Licensee shall ensure that waste material is only stored and/or treated within vessels or compounds provided with the infrastructure detailed in Table 1.3.1.

Table 1.3.1: Containment infrastructure

Storage vessel or compound	Material	Infrastructure requirements
Holding tank	Untreated animal wastes / effluent	Concrete lined
Wastewater Pond 1	Untreated wastewater	Clay lined

1.3.3 The Licensee shall manage Wastewater pond 1 such that:

- (a) overtopping of the wastewater treatment pond does not occur;
- (b) a minimum freeboard of 500mm is maintained;
- (c) the integrity of the containment infrastructure is maintained; and
- (d) vegetation and floating debris (emergent or otherwise) is prevented from encroaching onto pond surfaces or inner pond embankments.

1.3.4 The Licensee shall ensure that where wastes produced on the Premises are not taken off-site for lawful use or disposal, they are managed in accordance with the requirements in Table 1.3.2.

Table 1.3.2: Management of Waste

Waste type	Management strategy	Requirements
Piggery wash waters /effluent	Evaporation	<p>Wastewater may be re-used for the flushing of piggery sheds.</p> <p>No solids other than those already contained in the wastewater stream to be added to Wastewater Pond 1.</p> <p>Wastewater shall be removed from Wastewater Pond 1 for off-site disposal when required to prevent overflow of the pond.</p>



Table 1.3.2: Management of Waste

Waste type	Management strategy	Requirements
Carcasses	On-site burial	Carcasses to be buried in the carcass burial pit only (as shown on the map of storage locations in Schedule 1) such that: (i) all carcasses are removed daily to the burial pit; (ii) the pit base should be at least 2m above the groundwater table at all times; (iii) carcasses shall be covered with at least 500mm of soil immediately upon deposit; (iv) burial sites are 300m away from watercourses and 50m away from nearest properties; and (v) the burial pit location and number of animal carcasses buried is recorded for the duration of the Licence.
Sludge and solid waste (manure)	Off-site disposal	All sludge and solid waste removed from the wastewater treatment system or piggery sheds shall be stored on a temporary bunded and impervious containment infrastructure that is drained such that all leachate is directed to the wastewater treatment system.

- 1.3.5 The Licensee shall ensure that the total number of pigs held on the Premises does not exceed 1,000 pigs and shall record the maximum number of pigs being held on the premises each month.

2 Emissions

2.1 General

- 2.1.1 The Licensee shall record and investigate the exceedance of any descriptive or numerical limit or target specified in any part of section 2 of this Licence.

2.2-2.4 Point source emissions to air, surface water and groundwater

There are no specified conditions relating to point source emissions to air, surface water or groundwater in this section.

2.5 Emissions to land

There are no specified conditions relating to emissions to land in this section.

2.6 Fugitive emissions

- 2.6.1 The Licensee shall use all reasonable and practical measures to prevent and where that is not practicable, to minimise dust emissions from the Premises.

2.7 Odour

- 2.7.1 The Licensee shall ensure that odour emitted from the Premises does not unreasonably interfere with the health, welfare, convenience, comfort or amenity of any person who is not on the Premises.

2.8 Noise

There are no specified conditions relating to noise in this section.



3 Monitoring

3.1 General monitoring

3.1.1 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.

3.1.2 The Licensee shall ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications.

3.1.3 The Licensee shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

3.2-3.4 Monitoring of point source emissions to air, surface water and groundwater

There are no specified conditions relating to monitoring of point source emissions to air, surface water or groundwater in this section.

3.5 Monitoring of emissions to land

There are no specified conditions relating to monitoring of emissions to land in this section.

3.6-3.7 Monitoring of inputs and outputs and process monitoring

There are no specified conditions relating to monitoring of inputs and outputs or process monitoring in this section.

3.8 Ambient environmental quality monitoring

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

Table 3.8.1: Monitoring of ambient groundwater quality				
Monitoring point reference as defined in Schedule 1	Parameter	Units	Averaging period	Frequency
MB1 & MB4 MB2 ² & MB3 ²	Standing water level	m(AHD) and mBGL	Spot sample	Quarterly (January, April, July & October)
	pH ¹	-		
	Electrical conductivity ¹	µS/cm		
	Total Dissolved Solids	mg/L		
	Ammonium - Nitrogen	mg/L		
	Nitrate-Nitrogen	mg/L		
	Nitrite - Nitrogen	mg/L		
	Total Nitrogen	mg/L		
	Total Phosphorus	mg/L		

Note 1: All measurements to be conducted in the field at the time of sampling.

Note 2: Monitoring of MB2 and MB3 to commence once installed as per IR2.

3.9 Meteorological monitoring

There are no specified conditions relating to meteorological monitoring in this section.



4 Improvements

4.1 Improvement program

4.1.1 The Licensee shall complete the improvements in Table 4.1.1 by the date of completion in Table 4.1.1.

4.1.2 The Licensee, for improvements not specifically requiring a written submission, shall write to the CEO stating whether and how the Licensee is compliant with the improvement within one week of the completion date specified in Table 4.1.1.

Table 4.1.1: Improvement program

Improvement reference	Improvement	Date of completion
IR1	The Licensee shall install and thereafter maintain, a permanent survey marker within the existing wastewater treatment pond (Wastewater Pond 1) that will enable visual reading and recording of the freeboard in millimetres at any time.	60 days from the date of issue of this licence
IR2	<p>The Licensee shall install two groundwater monitoring bores (MB2 & MB3) adjacent to the south west and south east wall of the existing wastewater treatment pond (Wastewater Pond 1), as shown in the map of groundwater monitoring points in Schedule 1, to meet the following criteria;</p> <ul style="list-style-type: none">i. monitoring bores shall be constructed in accordance with the standards set out in the Department of Water, Water Quality Protection Note #30: 'Groundwater monitoring bores', February 2006;ii. monitoring wells shall be screened across the groundwater interface;iii. drilling technique chosen shall minimise compaction or smearing of borehole walls and transport of geological formation materials into different zones;iv. drilling method, drilling fluids used and bore development details shall be recorded;v. an accurate drilling and lithological log of soil strata shall be kept for all drilling operations; andvi. monitoring bores installed shall enable monitoring as outlined in condition 3.8.1 to commence in January 2015.	60 days from the date of issue of this licence
IR3	<p>The Licensee shall</p> <ul style="list-style-type: none">i. submit a copy to the CEO of the bore drilling and lithological logs for the monitoring bores installed, as required under IR2.ii. sample and test the permeability of the clay layer extracted from the drilling of the new monitoring bores (MB2 and MB3), submitting two sub-sampled clay cores to a NATA accredited soil testing laboratory for measuring the coefficient of permeability in accordance with AS 1289.6.7.1 (2001); andiii. submit to the CEO clay permeability test results	90 days from the date of issue of this licence
IR4	<p>The Licensee shall prepare and submit to the CEO an Odour Management Plan (OMP). The OMP shall include but not be limited to:</p> <ul style="list-style-type: none">i. a summary review of local meteorological conditions;ii. identification of the location of sensitive land uses with respect to the prevailing winds;iii. identification of primary and secondary odour sources and high odour generating activities; andiv. detail a strategy on how odour will be mitigated when potentially high odour generating activities are undertaken.	Submit OMP 16/01/15



Table 4.1.1: Improvement program		
Improvement reference	Improvement	Date of completion
	<ul style="list-style-type: none"> v. identify any infrastructural or efficiency improvements outlined in the NEGP that may contribute to a reduction of off-site odour impact. vi. A strategy for ongoing review of the performance of the OMP, with consideration to implementing any improvements identified under v. 	
IR5	<p>The Licensee shall submit to the CEO a Waste Management Plan (WMP) that assesses the design, operation and emissions achieved at the Premises against industry standards as identified in the NEGP for the:</p> <ul style="list-style-type: none"> i. effluent collection system (Chapter 10); ii. effluent treatment system (Chapters 11-13) including an assessment of the existing pond integrity considering results of the clay permeability tests required under IR3 and any associated risk to groundwater; and iii. carcass management system (Chapter 15), including an assessment of the risk to groundwater and surface water from the current burial pit location and options for ongoing carcass management. <p>The WMP shall include an assessment of options to :</p> <ul style="list-style-type: none"> i. install a solids separation system; ii. assess any requirement to repair the clay liner of the existing treatment pond iii. change the function of the existing treatment pond to a secondary or evaporation pond; iv. install one or more additional wastewater treatment ponds with a design capacity to effectively treat and capture all effluent discharged from the Premises including rainfall from a 1 in 20 year ARI storm event; v. install an evaporation pond with a design capacity to contain all treated wastewater from the wastewater treatment ponds including rainfall from a 1 in 20 year storm event; and vi. install an impervious and bunded solids/sludge drying bed that is capable of discharging all leachate to the primary wastewater treatment pond. <p>Where the assessment indicates the existing premises do not conform to NEGP standards in Chapter 10, 11, 12 or 13 or the existing pond design does not allow for a 1 in 20 year ARI storm event, the WMP shall contain an improvement proposal, including all design and construction details.</p>	Submit Waste Management Plan 16/01/15
IR6	The Licensee shall submit to the CEO a report on all existing tanks holding dangerous goods or environmentally hazardous materials identifying whether they are compliant with the standards in condition 1.2.3 for new tanks. The report will include a list of actions for each non-compliant tank.	Submit report 30/10/15
IR7	The Licensee shall submit to the CEO a report detailing a program of improvements to bring those non-compliant tanks identified in the response to IR6. These improvements should ensure those tanks are brought up to the standards in condition 1.2.3 based on the environmental risk from each tank.	Submit report 30/10/15



5 Information

5.1 Records

5.1.1 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 5.1.1(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 the 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.

5.1.2 The Licensee shall ensure that:

- (a) any person left in charge of the Premises is aware of the conditions of the Licence and has access at all times to the Licence or copies thereof; and
- (b) any person who performs tasks on the Premises is informed of all of the conditions of the Licence that relate to the tasks which that person is performing.

5.1.3 The Licensee shall complete an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.

5.1.4 The Licensee shall:

- (a) implement a complaints management system that shall record the following information (if known or provided) about complaints received at the Premises concerning any environmental impact of the activities undertaken at the Premises:
 - (i) name and address of the complainants (if consented);
 - (ii) date and time of complaint;
 - (iii) date and time of alleged incident;
 - (iv) alleged source of the incident;
 - (v) general description of the alleged incident, including any environmental or health impacts reported by the complainant;
 - (vi) wind direction, wind speed and temperature at time of alleged incident;
 - (vii) distance to complainant (if known);
 - (viii) likely source of the alleged incident;
 - (ix) actions taken by licensee to address complaint, including the outcome of any investigation(s) and action(s) to verify any impacts;
 - (x) a summary of any follow up communications with the complainant post any investigations and actions taken.
- (b) complete an annual analysis and review of complaints recorded under 5.1.4(a) to identify any common factors and root cause of complaints and proposals to address these.

5.2 Reporting

5.2.1 The Licensee shall submit to the CEO an Annual Environmental Report within 28 calendar days after the end of the annual period. The report shall contain the information listed in Table 5.2.1 in the format or form specified in that table.

Table 5.2.1: Annual Environmental Report

Condition or table (if relevant)	Parameter	Format or form ¹
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken.	None specified



Table 5.2.1: Annual Environmental Report

Condition or table (if relevant)	Parameter	Format or form ¹
-	Cubic meters of liquid waste removed from Wastewater Pond 1 for off-site disposal.	Form PN1
	Cubic meters of solid wastes or sludge removed from the Premises for off-site disposal.	
1.3.5	Number of pigs (sows, gilts, boars, weaners, growers, finishers) retained and removed from the Premises each month	Form PN1
1.3.7	Carcass burial records	None specified
Table 3.8.1	Standing water level, pH, electrical conductivity, total dissolved solids, ammonium-nitrogen, nitrate-nitrogen, nitrite-nitrogen, total nitrogen & total phosphorus	AGQ1
5.1.3	Compliance for the annual period	Annual Audit Compliance Report (AACR)
5.1.4	Complaints summary for the annual period	None specified

Note 1: Forms are in Schedule 2

5.2.2 The Licensee shall ensure that the Annual Environmental Report also contains:

- (a) any relevant process, production or operational data recorded under Condition 3.1.3; and
- (b) an assessment of the information contained within the report against previous monitoring results and Licence limits and/or targets.

5.2.3 The Licensee shall submit the information in Table 5.2.2 to the CEO according to the specifications in that table.

Table 5.2.2: Non-annual reporting requirements

Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form
-	Copies of original monitoring reports submitted to the Licensee by third parties	Not Applicable	Within 14 days of the CEO's request	As received by the Licensee from third parties

5.3 Notification

5.3.1 The Licensee shall ensure that the parameters listed in Table 5.3.1 are notified to the CEO in accordance with the notification requirements of the table.

Table 5.3.1: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement ¹	Format or form ²
-	Any wastewater treatment pond or evaporation pond taken offline	72 hours prior to taking a wastewater pond offline for maintenance or desludging	None specified
	Any wastewater treatment pond or evaporation pond recommissioned	Within 72 hours of a wastewater pond coming back on-line	
1.3.5	Any time the total number of pigs kept on the premises exceeds 1000	Part A: As soon as practicable but no later than 5pm of the next usual working day.	N1
-	Any failure or malfunction of any pollution control equipment or any incident,	Part B: As soon as practicable	



Table 5.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement ¹	Format or form ²
	which has caused, is causing or may cause pollution		
3.1.5	Calibration report	As soon as practicable.	None specified

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

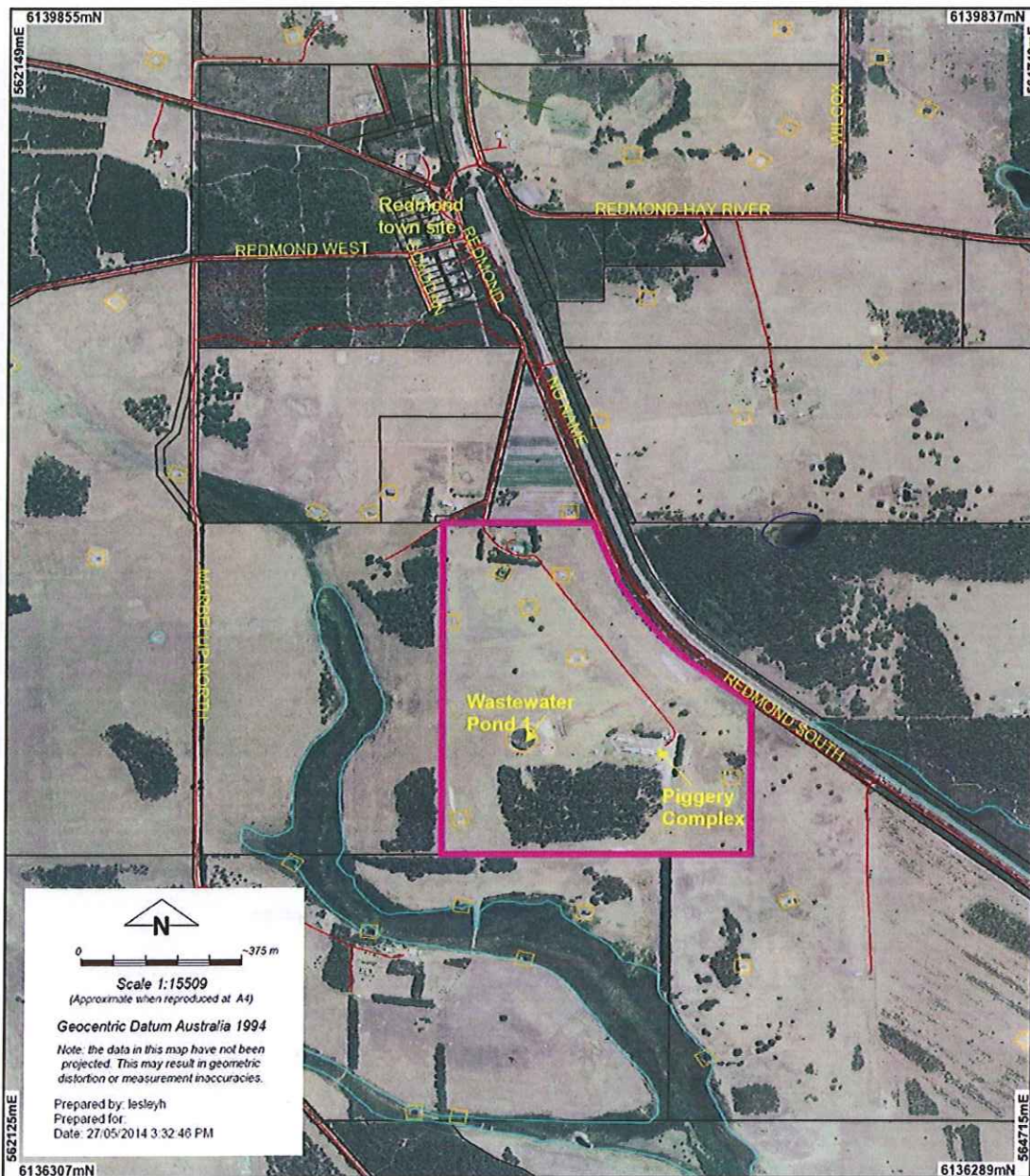
Note 2: Forms are in Schedule 2



Schedule 1: Maps

Premises map

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





Map of storage locations

The location of the storage areas defined in Table 1.3.1 are shown below.



Key:

- 1: Weaner/grower shed
- 2: Finisher shed
- 3: Farrowing shed / 3 rooms
- 4: Dry sow shed

- 5: Feed silos & mixing shed
- 6: Workshop
- 7: Staff accommodation
- 8: Storage shed

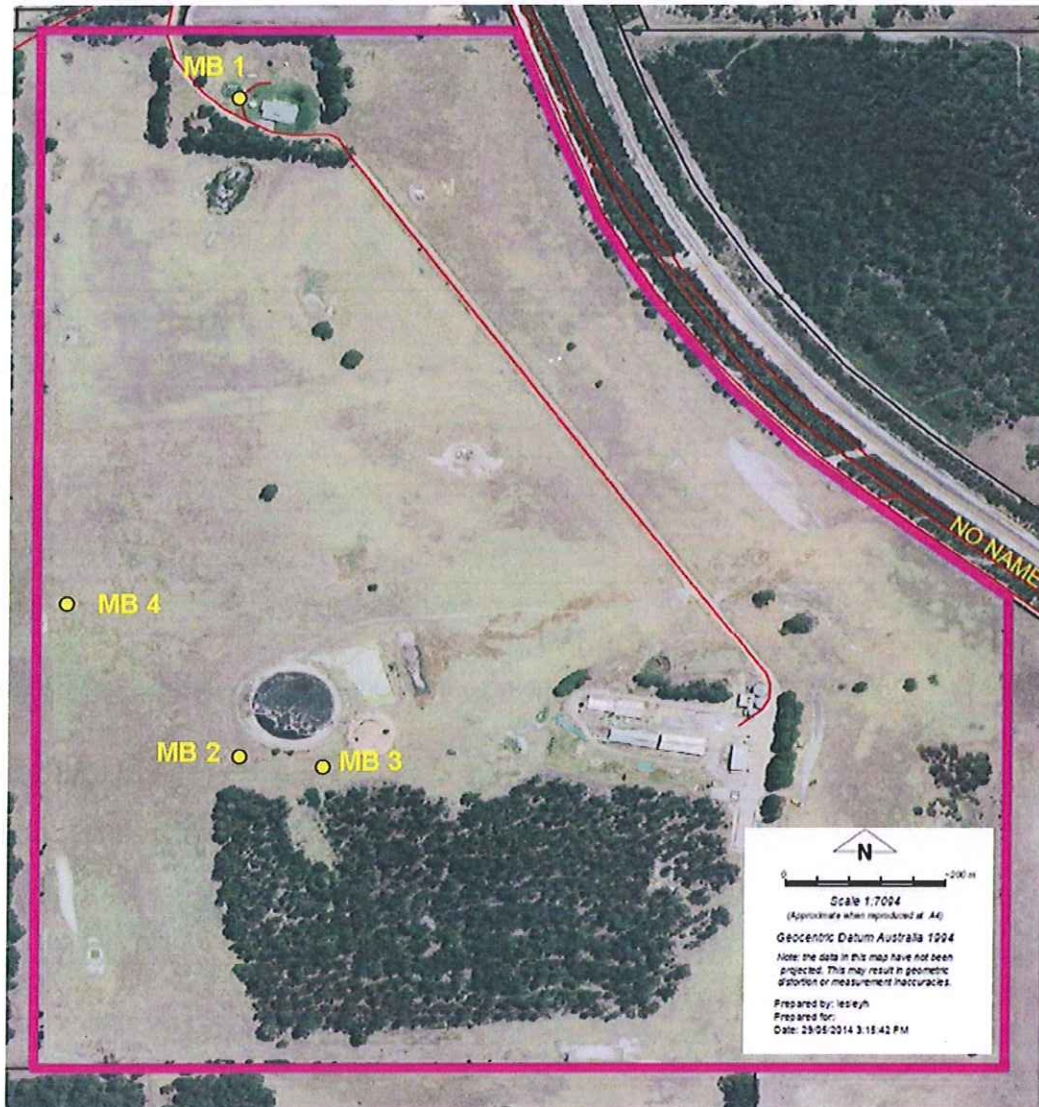
- 6m³ flush water tanks
- Effluent holding tank (sump)
- Effluent pipeline
- Recycled water pipeline

- New bores



Map of ambient groundwater monitoring bore locations

The locations of the groundwater monitoring points defined in Table 3.8.1 are shown below.





Schedule 2: Reporting & notification forms

These forms are provided for the proponent to report monitoring and other data required by the Licence. They can be requested in an electronic format.

ANNUAL AUDIT COMPLIANCE REPORT PROFORMA

SECTION A

LICENCE DETAILS

Licence Number:	Licence File Number:
Company Name:	ABN:
Trading as:	
Reporting period: _____ to _____	

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

1. Were all conditions of the Licence complied with within the reporting period? (please tick the appropriate box)

Yes ☐ Please proceed to Section C

No ☐ Please proceed to Section B

Each page must be initialled by the person(s) who signs Section C of this Annual Audit Compliance Report (AACR).

Initial:



SECTION B

DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

Please use a separate page for each licence condition that was not complied with.

a) Licence condition not complied with:	
b) Date(s) when the non compliance occurred, if applicable:	
c) Was this non compliance reported to DER?:	
<input type="checkbox"/> Yes <input type="checkbox"/> Reported to DER verbally Date _____ <input type="checkbox"/> Reported to DER in writing Date _____	<input type="checkbox"/> No
d) Has DER taken, or finalised any action in relation to the non compliance?:	
e) Summary of particulars of the non compliance, and what was the environmental impact:	
f) If relevant, the precise location where the non compliance occurred (attach map or diagram):	
g) Cause of non compliance:	
h) Action taken, or that will be taken to mitigate any adverse effects of the non compliance:	
i) Action taken or that will be taken to prevent recurrence of the non compliance:	

Each page must be initialled by the person(s) who signs Section C of this AACR

Initial:



SECTION C

SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report (AACR) may only be signed by a person(s) with legal authority to sign it. The ways in which the AACR must be signed and certified, and the people who may sign the statement, are set out below.

Please tick the box next to the category that describes how this AACR is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

If the licence holder is		The Annual Audit Compliance Report must be signed and certified:
An individual	<input type="checkbox"/> <input type="checkbox"/>	by the individual licence holder, or by a person approved in writing by the Chief Executive Officer of the Department of Environment Regulation to sign on the licensee's behalf.
A firm or other unincorporated company	<input type="checkbox"/> <input type="checkbox"/>	by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A corporation	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	by affixing the common seal of the licensee in accordance with the Corporations Act 2001; or by two directors of the licensee; or by a director and a company secretary of the licensee, or if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A public authority (other than a local government)	<input type="checkbox"/> <input type="checkbox"/>	by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
a local government	<input type="checkbox"/> <input type="checkbox"/>	by the chief executive officer of the licensee; or by affixing the seal of the local government.

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of \$50,000 for an individual or body corporate.

I/We declare that the information in this annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE: _____

SIGNATURE: _____

NAME:
(printed) _____

NAME:
(printed) _____

POSITION: _____

POSITION: _____

DATE: ____/____/____

DATE: ____/____/____

SEAL (if signing under seal)



Licence:
Form:
Name:

L8809/2014/1
PN1

Monitoring of pig numbers & off-site waste disposal

Licencee: John Charles Bunn
Period :

Form PN1: Monitoring of pig numbers & offsite waste disposal									
Month	Date	Number of pigs						Offsite waste removal	
		sows	boars	gilts	weaners	growers	finishers	Liquid waste from Wastewater Pond 1 (m ³)	Sludge/solid waste (m ³)
January									
	Removed								
February									
	On Premises								
March									
	On Premises								
April									
	Removed								
May									
	On Premises								
June									
	Removed								
July									
	On Premises								
August									
	Removed								
September									
	On Premises								
October									
	Removed								
November									
	On Premises								
December									
	Removed								

Signed on behalf of John Charles Bunn Date:



Licence: L8809/2014/1
Form: AGQ1
Name: Monitoring of ambient groundwater quality
Licencee: John Charles Bunn
Period :

Form AGQ1: Monitoring of ambient groundwater quality					
Emission point	Parameter	Result ¹	Averaging period	Method	Sample date & times
MB1	Standing Water Level	m(AHD)	Spot sample		
	Standing Water Level	mBGL			
	pH	-			
	Electrical conductivity	µS/cm			
	Total Dissolved Solids	mg/L			
	Ammonium Nitrogen	mg/L			
	Nitrate Nitrogen	mg/L			
	Nitrite Nitrogen	mg/L			
	Total Nitrogen	mg/L			
	Total Phosphorus	mg/L			
MB2	Standing Water Level	m(AHD)	Spot sample		
	Standing Water Level	mBGL			
	pH	-			
	Electrical conductivity	µS/cm			
	Total Dissolved Solids	mg/L			
	Ammonium Nitrogen	mg/L			
	Nitrate Nitrogen	mg/L			
	Nitrite Nitrogen	mg/L			
	Total Nitrogen	mg/L			
	Total Phosphorus	mg/L			



Form AGQ1: Monitoring of ambient groundwater quality					
Emission point	Parameter	Result ¹	Averaging period	Method	Sample date & times
MB3	Standing Water Level	m(AHD)	Spot sample		
	Standing Water Level	mBGL			
	pH	-			
	Electrical conductivity	µS/cm			
	Total Dissolved Solids	mg/L			
	Ammonium Nitrogen	mg/L			
	Nitrate Nitrogen	mg/L			
	Nitrite Nitrogen	mg/L			
	Total Nitrogen	mg/L			
Total Phosphorus	mg/L				
MB4	Standing Water Level	m(AHD)	Spot sample		
	Standing Water Level	mBGL			
	pH	-			
	Electrical conductivity	µS/cm			
	Total Dissolved Solids	mg/L			
	Ammonium Nitrogen	mg/L			
	Nitrate Nitrogen	mg/L			
	Nitrite Nitrogen	mg/L			
	Total Nitrogen	mg/L			
Total Phosphorus	mg/L				

Signed on behalf of John Charles Bunn Date:



Licence: L8809/2014/1
Form: N1

Licensee: John Charles Bunn
Date of breach:

Notification of detection of the breach of a limit or any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution.

These pages outline the information that the operator must provide.
Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

Licence Number	
Name of operator	
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Notification requirements for any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution	
Date and time of event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken , or intended to be taken, to stop any emission	
Description of the failure or accident	



Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of John Charles Bunn	
Date	



Decision Document

Environmental Protection Act 1986, Part V

Proponent: John Charles Bunn

Licence: L8809/2014/1

Registered office: 71 Redmond South Rd
REDMOND WA 6327

ACN: N/A

Premises address: Marbelup Pork
71 Redmond South Rd
REDMOND WA 6327
Being Lot 3426 on Plan 80606 as depicted in Schedule 1.

Issue date: Thursday, 9 October 2014

Commencement date: Friday, 10 October 2014

Expiry date: Monday, 9 October 2017

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue a licence. DER considers that in reaching this decision, it has taken into account all relevant considerations and legal requirements and that the Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by: Lesley Hart
Licensing Officer

Decision Document authorised by: Caron Goodbourn
Manager Licensing



Contents

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3 Executive summary of proposal	4
4 Decision table	6
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1 Purpose of this Document

This decision document explains how DER has assessed and determined the application for a works approval or licence, 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.

Works approval and licence conditions

DER has three types of conditions that may be imposed on works approvals and licences. They are as follows;

Standard conditions (SC)

DER has standard conditions that are imposed on all works approvals and licences regardless of the activities undertaken on the Premises and the information provided in the application. These are included as the following conditions on works approvals and licences:

Works approval conditions: 1.1.1-1.1.4, 1.2.1, 1.2.2, 5.1.1 and 5.1.2.

Licence conditions: 1.1.1-1.1.4, 1.2.1-1.2.4, 5.1.1-5.1.4 and 5.2.1.

For such conditions, justification within the Decision Document is not provided.

Optional standard conditions (OSC)

In the interests of regulatory consistency DER has a set of optional standard conditions that can be imposed on works approvals and licences. DER will include optional standard conditions as necessary, and are likely to constitute the majority of conditions in any licence. The inclusion of any optional standard conditions are justified in Section 4 of this document.

Non standard conditions (NSC)

Where the proposed activities require conditions outside the standard conditions suite DER will impose one or more non-standard conditions. These include both premises and sector specific conditions, and are likely to occur within few licences. Where used, justification for the application of these conditions will be included in Section 4.



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
	2	1,000 animals (150 sow farrow to finish piggery)
Application verified	Date: 04/02/2014	
Application fee paid	Date: 27/02/2014	
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		
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 checked="" type="checkbox"/> No <input 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

The proponent advised in submitted application documentation, that he currently operates an intensively housed 200 sow farrow to finish piggery on his 64 hectare property, known as Marbellup Pork. The Premises is located 25km north west of Albany and approximately 1.4 km south of the Redmond township and lies within the upper catchment of Marbellup Brook, which has been identified as a future potential drinking water supply for Albany. The Premises is located within a priority two (P2) area of the Marbellup Brook Catchment Area, and though this area is not currently an active public drinking water source area (PDWSA), risks within the catchment area are required to be managed according to Department of Water policies and guidelines to safeguard any future use of the drinking water source. Marbellup Brook is also registered as a site of Aboriginal significance.

The piggery was first established at the Premises in 1987 as a 100 sow breeder operation, with the wastewater treatment pond built in 1992/1993 without a Works Approval and prior to any registration or licensing of the Premises. The Premises was licenced from 1994 to 1997 with pig numbers restricted to a maximum of 1100 pigs. The Premises changed from being licenced to become a Category 69: Intensive Piggery Registration in December 1997, based on the piggery operating at that time with pig numbers below 1,000. Local government Offensive Trade approval was first given in August 1995, with the Premises first registered as an Offensive Trade in May 1998. The Offensive Trade licence has since been maintained. Local government planning scheme consent was given in April 1996, limiting sow numbers to 150 sows.

The piggery has continued to operate under the (DER) Registration since 1997, excluding from April 2007 to December 2010 when the premises was de-stocked. The City of Albany received a proposal from the proponent in late 2001 to expand the sow numbers to 300 which was never formally approved. The proponent was advised by the then Department of Environment Protection that the premises would require a licence should all the required expansion approvals proceed. Expansion of the premises proceeded, including the construction of an additional shed without City of Albany planning approval or a Works Approval. Further unapproved expansion has occurred since December 2010, raising sow numbers to the current level of 200 (as per information supplied in the licence application), and resulting in a piggery with a capacity to house 1,200 pigs at any one time.

The Premises consists mostly of cleared pasture, apart from the Piggery infrastructure and a 9 hectare remnant vegetation area that borders the southern edge of the Premises and provides a buffer between the piggery and a section of the Marbellup Brook just south on the neighbouring rural property. The Premises are surrounded by rural properties with a section of the Perth-Albany railway line running adjacent to the north eastern boundary. The nearby residential receptors include several rural residences approximately 875m SW, 950m east, 1.0km N/NE and 1.6km south of the piggery, in addition to all residents in the nearby small rural township of Redmond 1.4km N/NW of the Premises. The EPA Guidance Statement # 3 Separation Distances between Industrial and Sensitive Land Uses recommends a separation distance of 3500m for odour and noise impacts from intensive piggeries that hold between 500 and 5000 pigs, indicating that this piggery may not be appropriately located relative to the Redmond townsite, being located well within the recommended buffer.

The Marbellup Brook flows through an immediate neighbouring property and lies approximately 300m west and 430m south of the wastewater treatment pond. Soil on the upper elevations consist of a shallow 600mm well drained clay loam / loamy sand and loam with fine gravel intermixed. The area is thought to be underlain by approximately 10 metres of clay before reaching groundwater. Lower elevations of the Premises consist of more sandy textured soil with scattered coffee rock outcrops. Regional groundwater flow is southward with groundwater levels on the Premises thought to range from approximately 12-14 metres below ground level (BGL) in the north to approximately 10-12 m BGL just north of the existing wastewater pond.



Piggery wash down water and wastewater from the weaner/grower and finisher sheds is collected through slatted floors and channelled via concrete drains to a concrete holding tank (sump). The effluent from the plug pull system in the farrowing shed and wash waters from the dry sow shed are transferred by pvc pipes to the concrete drainage channels beside the weaner/grower shed flowing to the concrete holding tank. There is no solids separation in place prior to transport of the wastewater from the holding tank to the treatment pond. Wastewater and collected solids in the holding tank are mixed and then pumped directly to the anaerobic pond which has a design capacity to hold 14,450m³ of wastewater. Water from this anaerobic pond is currently pumped back to the flush water tanks and is used to flush the dry sow, weaner/grower and finisher sheds approximately twice per week.

Over its years of operation the piggery has been the subject of numerous odour complaints from several nearby residents. In the past, the proponent has mechanically spread dried sludge from the wastewater treatment pond and untreated wastewater direct from the concrete holding tank (sump) to land. He has also, on occasions, irrigated water from the wastewater treatment pond to adjacent paddocks just south of the pond. These practises correlated with odour emission incidents and complaints being received. The piggery has been expanded without all the necessary local government and environmental regulatory departmental approvals, increasing the capacity (pig places) of the piggery in 2013 to 1,200 pigs. The holding capacity of the pigs was increased without the wastewater treatment capacity and disposal system being increased accordingly.

This licence is for the operation of an existing facility that has been operating under a registration and, in 2013, found to be operating above the approved pig number limit for a Registered piggery of 999 and above the approved sow limit set by the local government planning consent. The main emissions at the Premises relate to piggery effluent collection, treatment and disposal and associated odour emissions which rate as high risk under current operating conditions. The licence addresses the operational and emissions risks through limitation of pig numbers, the prevention of the discharge of solid or liquid wastes to land, groundwater monitoring requirements and the setting of improvement conditions to bring the premises operations in line with best practice management as identified in the National Environmental Guidelines for Piggeries 2010.



4 Decision table

All applications are assessed under the Environmental Protection Act 1986, the Environmental Protection Regulations 1987, DER's Corporate Policy Statement No. 7 – Operational Risk Management and the risk matrix attached to this Decision Document in Section 6. Where other references have been used in making the decision they are detailed in the decision table.

DECISION TABLE				
Works Approval / Licence section	Condition number W = Works Approval L= Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
General & Premises operation conditions	L 1.2.3 & L1.2.5 L1.3.1 – L1.3.4 L1.3.5	OSC & NSC	Operation	Application supporting documentation
			<u>Emission Description</u> <i>Emission:</i> Stormwater contamination from activities on the premises including contaminated runoff from effluent collection area and potentially contaminated runoff from the wastewater treatment pond (WWTP) <i>Impact:</i> Contamination of surrounding land and potential infiltration to groundwater. Current piggery infrastructure and operations allow for some shed roof runoff (weaner/grower shed) to enter the concrete effluent drainage channel running along either side of this shed before it enters the concrete sump (holding tank). Therefore, this stormwater does become contaminated, but is retained within the effluent collection system. Groundwater is estimated to be approximately 10-12 metres. The nearest watercourse, Marbellup Brook, is 300 metres away, and is classified as a P2 priority area for management as a potential drinking water source. Considering the distance to the nearest watercourse and the presence of vegetated buffers it is considered unlikely that contaminated stormwater would reach the watercourse. <i>Controls:</i> The wastewater temporarily stored in the concrete holding tank is required to be managed to ensure there is no back flow along the open concrete effluent channel, potentially leading to contaminated stormwater overflow from the channel under high rainfall conditions. All potentially contaminated stormwater generated within the area of the piggery sheds is directed to the concrete holding tank and from there via a plastic (PVC) pipe to the WWTP.	Historical supporting documentation Code of Practice for the Storage and Handling of Dangerous Goods, Department of Mines and Petroleum, Government of Western Australia General provisions of the <i>Environmental Protection Act 1986</i> <i>Environmental Protection (Unauthorised Discharges) Regulations, 2004</i>



DECISION TABLE

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p><u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u> OSC 1.2.5 has been included on the licence to ensure that all practical measures are implemented to prevent stormwater runoff from becoming contaminated. OSC's 1.3.1. – 1.3.4 in the licence include process requirements to ensure proper diversion of wastewater to the WWTP, correct operation of the WWTP including requirements to prevent overtopping of the pond, maintain a minimum 500mm freeboard and ensure that the integrity of the pond containment infrastructure is maintained.</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> Piggery effluent generated in and flushed from the sheds. Effluent is transferred by either plastic (PVC) piping or open concrete channels around some sheds, to a concrete holding tank and is subsequently transferred by pumping through PVC piping to the wastewater treatment pond (WWTP). Partially treated wastewater is pumped back from the WWTP via a PVC pipe to flush water tanks and is used to flush the majority of sheds. <i>Impact:</i> Potential contamination of land and subsequent infiltration to groundwater. <i>Controls:</i> Maintenance of concrete effluent channels and PVC pipes. Daily transfer of effluent from holding tank to WWTP. Damaged and poorly maintained</p>	<p>National Environmental Guidelines for Piggeries; Australian Pork Ltd. Second Edition (Revised) 2010</p> <p>Marbellup Brook Catchment Area Drinking Water Source Protection Plan. Department of Water. Water Resource Protection Series. Report No. 67, April 2007</p> <p>The Marbellup Water Reserve Drinking Water Source Protection Assessment, Water Corporation, 2004</p>



DECISION TABLE

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p>infrastructure has been historically observed and subsequently rectified at the site.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Possible <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u> OSC's 1.3.1. – 1.3.4 in the licence include process requirements to ensure appropriately contained and managed effluent collection and diversion of wastewater to the WWTP. Management requirements for the WWTP include a requirement to maintain the integrity of the containment infrastructure and remove excess waste when required by a controlled waste service.</p> <p>The WWTP is not consistent with the requirements of the National Environmental Guidelines for Piggeries or the Department of Water Protection Note 27 - Liners for containing pollutants, using engineered soils. NSC 1.3.5 restricting maximum numbers to 1000 pigs (defined as weaned animals within the licence as opposed to the Category 2 threshold of 1000 animals under the <i>Environmental Protection Regulations 1987</i>), has been included as the WWTP is deemed inappropriate to deal with more effluent than was previously allowed under the sites registration.</p> <p>IR2 and IR3 are improvement requirements set to enable confirmation of the site soil profile, including the presence and depth of the clay layer, determine the permeability of the clay which was used more than 20 years ago for the construction of the existing WWTP, and allow for groundwater quality and depth monitoring adjacent to the WWTP to determine any potential effluent infiltration impacts. Upon satisfactory completion of the improvement requirements relating to wastewater management, DER will give consideration to an increase in animal</p>	



DECISION TABLE				
Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p>numbers to 1200 at the site, should the proponent submit a licence amendment application.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Possible <i>Risk Rating:</i> Moderate</p> <p><u>Emission Description</u> <i>Emission:</i> Disposal by burial of solid wastes (animal carcasses) <i>Impact:</i> Contamination of surrounding land and groundwater is possible. However distance to groundwater on site is approximately 10 metres and the distance from the current carcass burial pit to Marbellup Brook is approximately 400 metres. Odour may also be generated but is considered under the 'odour emissions' section.</p> <p><i>Controls:</i> The carcass burial pit is excavated to a depth of 6m and is unlined, but is located in heavy in situ soils. Waste is covered daily with 100mm of soil.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Possible <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u> OSC 1.3.4 in the licence includes process requirements for carcass burial to ensure correct management and disposal. NSC 1.3.5 restricting maximum numbers to 1000 pigs (defined as weaned animals within the licence as opposed to the Category 2 threshold of 1000 animals under the <i>Environmental Protection</i></p>	



DECISION TABLE

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p><i>Regulations 1987</i>, limiting likely volumes of carcasses requiring burial until the necessary improvements to waste management and burial are implemented. Improvement requirements IR2 and IR3 and subsequent groundwater monitoring will confirm understanding of the soil profile and groundwater depth in the vicinity of the carcass burial pit.</p> <p>Upon satisfactory completion of the improvement requirements relating to carcass management, DER will give consideration to an increase in animal numbers to 1200 at the site should the proponent submit a licence amendment application.</p> <p><u>Residual Risk</u> <i>Consequence</i>: Minor <i>Likelihood</i>: Likely <i>Risk Rating</i>: Moderate</p> <p><u>Emission Description</u> <i>Emission</i>: Leachate from the temporary storage of solid wastes and sludge prior to off-site disposal. <i>Impact</i>: Contamination of surrounding land and groundwater is possible. However, the distance to groundwater on site is approximately 10 metres and the distance to Marbellup Brook is approximately 400metres. Odour may also be generated but is considered under the odour emission section. <i>Controls</i>: N/A. Subject to temporary storage being required and set up, prior to any future permanent solid waste / sludge hardstand area being established.</p> <p><u>Risk Assessment</u> <i>Consequence</i>: Minor <i>Likelihood</i>: Possible</p>	



DECISION TABLE

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p>Risk Rating: Moderate</p> <p><u>Regulatory Controls</u></p> <p>OSC 1.3.4 in the licence includes process requirements for the temporary storage of solid wastes being manure and sludge generated from the desludging of the wastewater treatment pond, pending the off-site disposal of these wastes. IR 5 also requires submission of a waste management plan that shall include an assessment of options to install a permanent solid waste storage area with appropriate permeability and drainage.</p> <p><u>Residual Risk</u></p> <p><i>Consequence</i>: Insignificant <i>Likelihood</i>: Unlikely <i>Risk Rating</i>: Low</p>	
Emissions general	L2.1.1	OSC	<p>Descriptive limits will be set through conditions 2.6.1 and 2.7.1 of the licence and therefore OSC L2.1.1 regarding recording and investigation of exceedances of limits or targets has been included.</p>	<p>EPA Guidance for the Assessment of Environmental Factors Statement #3 for Separation Distances between Industrial and Sensitive Land Uses. June 2005</p> <p>National Environmental Guidelines for Piggeries; Australian Pork Ltd. Second Edition (Revised) 2010</p>



DECISION TABLE

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
Point source emissions to air including monitoring	L2.2 and L3.2	N/A	No point source air emissions are expected from the operations of the piggery. No specified conditions relating to point source emissions to air or the monitoring of these emissions are required to be added to the licence. Gaseous emissions, including odour generating gaseous emissions are considered in the odour emissions section below.	<i>Environmental Protection (Unauthorised Discharges) Regulations, 2004</i> Application supporting documentation
Point source emissions to surface water including monitoring	L2.3 and L3.3	N/A	There are no point source emissions to surface water proposed or authorised by this Licence. Therefore no specific conditions relating to point source emissions to surface water or the monitoring of these emissions are required to be added to the licence.	<i>Environmental Protection (Unauthorised Discharges Regulations, 2004)</i>
Point source emissions to groundwater including monitoring	L2.4 and L3.4	N/A	No point source emissions to groundwater are expected from the operation of the piggery. Therefore no specific conditions relating to point source emissions to groundwater or the monitoring of these emissions are required to be added to the licence. The potential for emissions to land occurring that may infiltrate to, and potentially impact on groundwater (eg potential for leakage from the existing pond), are considered under effluent management in the general & operational section above and under ambient groundwater monitoring.	Application supporting documentation
Emissions to land including monitoring	L2.5 and L3.5	N/A	No emissions to land (animal wastes) are expected from the operation of the piggery, therefore no monitoring of emissions to land are required for the Licence. Any proposed or future application of animal wastes to land (irrigation of wastewater or the spreading of solid wastes) will need to be assessed and approved through a works approval or licence amendment application.	Application supporting documentation



DECISION TABLE

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
Fugitive emissions	L2.6	OSC	<u>Emission Description</u> <i>Dust Emissions:</i> There is an unsealed road accessing the piggery complex which, whilst traffic volumes are low, is a potential minor source of dust emissions. The delivery and bulk transfer of dry feed supplies is also a minor potential source of dust emissions. <i>Impact:</i> Potential nuisance impacts on nearby residential receptors (closest is 875m SW) are considered to be unlikely due to significant separation distance for dust impact mitigation. Also, there is no history of dust complaints. <i>Controls:</i> No specific controls proposed.	Application supporting documentation National Environmental Guidelines for Piggeries, Australian Pork Ltd., Second Edition (Revised) 2010
			<u>Risk Assessment</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low	
			<u>Regulatory Controls</u> OSC 2.7.1 to use all reasonable and practical measures to prevent and minimise dust emissions has been included on the Licence.	
			<u>Residual Risk</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Rare <i>Risk rating:</i> Low	
Odour	L2.7	OSC	<u>Emission Description</u> <i>Emission:</i> Odour emissions are related to manure management from the anaerobic treatment of piggery manure and waste. Odour from gaseous emissions is generated from the sheds, effluent collection drains and sump (including during	Application supporting documentation Historical supporting



DECISION TABLE

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p>mechanical agitation of the effluent in the holding sump prior to its transfer to the WWTP) and from the WWTP.</p> <p><i>Impact:</i> Reduced local air quality including potential odour impact on nearby sensitive residential receptors. Closest receptor is 875m SW of the Premises. Odour emissions have reportedly impacted on residents including those living in the nearby town site of Redmond, approximately 1.4km north of the Premises, for more than 15 years. The long history of odour issues and complaints for this premises have been primarily related to the operation and management of the one anaerobic wastewater treatment pond and past practices of the irrigation of wastewaters and the mechanical spreading of waste solids and sludges to adjacent pasture. The EPA guidance on the recommended separation distances for an intensive piggery of 500 - 5000 pigs is 3,500m to the nearest town site. The NEGP guidelines set the minimum separation distances at 250m to a rural dwelling and 750m to a town. However, more detailed assessment procedures are recommended in the NEGP to determine site specific separation distances.</p> <p><i>Controls:</i> There is only one WWTP and wastewaters are recycled from this pond to flush the sheds. The proponent has described this pond as primarily providing anaerobic treatment. However, the large circular design of the pond and the depth do not meet industry design standards to achieve effective anaerobic treatment. In the absence of additional treatment ponds, providing further treatment (i.e. aerobic and facultative) and evaporative functions, the capacity to control odour from the WWTP is limited.</p> <p>The historical practice of placement of straw on the pond surface, in response to odour complaints, may have had an impact on some gaseous emissions but has not proven to be effective in odour control and management. The proponent has used an enzyme product to reduce odour.</p> <p>Risk Assessment Consequence: Moderate</p>	<p>documentation</p> <p>National Environmental Guidelines for Piggeries, Australian Pork Ltd., Second Edition (Revised) 2010</p> <p>EPA Guidance for the Assessment of Environmental Factors Statement #3 for Separation Distances between Industrial and Sensitive Land Uses. June 2005</p>



DECISION TABLE				
Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p><i>Likelihood: Almost Certain</i> <i>Risk Rating: High</i></p> <p><u>Regulatory Controls</u> The proponent has noted in their application 'there is always some presence of odour at the site'. Whilst there is only one treatment pond to receive and treat all wastewaters from the Premises, placement of straw on the pond surface is not considered an acceptable practice serving only to decrease evaporation, and increase nutrient and BOD levels through the addition of organic matter, which in turn increases the need for pond desludging, a further cause of significant odour emission events. This practice is restricted under OSC 1.3.4 under management of effluent requirements.</p> <p>The OSC 2.7.1 is included to ensure that odour emitted from the Premises does not unreasonably interfere with the health, welfare, convenience, comfort or amenity of any person who is not on the Premises. In addition, given the Premises history and the high risk of odour emissions the OSC reporting condition 5.1.4 has been set on the Licence to ensure a detailed and thorough complaints management system is applied to all odour complaints.</p> <p>NSC 1.3.5 restricting maximum numbers to 1000 pigs (defined as weaned animals within the licence as opposed to the Category 2 threshold of 1000 animals under the <i>Environmental Protection Regulations 1987</i>) is expected to assist with odour control issues in the interim through the associated reduction in effluent volume and the quality of wastewater requiring treatment and storage. It is noted that the restriction is applied to "pigs".</p> <p>Improvement Requirements IR 4 and IR5, address odour emissions by requiring a review of operations and upgrades to wastewater treatment infrastructure to meet</p>	



DECISION TABLE

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p>current best practice guidelines, and a requirement to thoroughly review odour generation from the Premises and submit an Odour Management Plan.</p> <p>Upon satisfactory completion of the improvement requirements relating to odour and wastewater management, DER will give consideration to an increase in animal numbers to 1200 at the site, should the proponent submit a licence amendment application.</p> <p>The Licence also does not authorise the spreading of animal wastes or effluent to land as this poses an unacceptable odour risk due to the poor level of treatment.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Likely <i>Residual Risk Rating:</i> Moderate</p> <p><u>Residual Risk (following completion of all improvement requirements)</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Unlikely <i>Residual Risk Rating:</i> Moderate</p>	
Noise	L2.8	N/A	<p><u>Emission Description</u> <i>Emission:</i> Animal feeding and other animal activity, truck delivery and despatch activities and the operation of pumps and other equipment at the site constitute the main likely sources of noise emissions from the Premises. <i>Impact:</i> Impacts from noise emissions are considered to be unlikely as truck movements to and from the Premises are minimal and all conducted in daylight hours. Pig load out takes place once/week for 1 hour and approximately 20 truck</p>	Application supporting documentation <i>Environmental Protection (Noise) Regulations 1997</i>



DECISION TABLE

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p>movements per year transport feed grain to the site. The closest residential receptor is approximately 875m away to the SW. No formal complaints regarding noise have been received in the past.</p> <p><u>Controls:</u> In accordance with the EPA Separation Distances, it is noted that the recommended separation distance (for noise impacts) to sensitive receptors is 3,500m to the nearest town site. The Redmond town site is approximately 1.4km north of the Premises and after hours noise has been raised by one stakeholder as an issue. The proponent has not proposed any specific control measures.</p> <p><u>Risk Assessment</u> <u>Consequence:</u> Insignificant <u>Likelihood:</u> Rare <u>Risk Rating:</u> Low</p> <p><u>Regulatory Controls</u> The <i>Environmental Protection (Noise) Regulations 1987</i> will provide adequate regulatory control in the unlikely event of any noise issues.</p> <p><u>Residual Risk</u> <u>Consequence:</u> Insignificant <u>Likelihood:</u> Unlikely <u>Risk rating:</u> Low</p>	EPA Guidance for the Assessment of Environmental Factors Statement #3 for Separation Distances between Industrial and Sensitive Land Uses. June 2005
Monitoring general	L3.1.1-3.1.3	OSC	L3.1.1 included to ensure groundwater sampling is undertaken in accordance with AS/NZS standards and analysis by NATA accredited laboratory. L3.1.2 and L3.1.3 included to ensure calibration of all monitoring equipment and reporting where calibration requirements cannot be met.	
Monitoring of inputs and outputs and	L3.6 & L3.7	N/A	Requirements for reporting on pig numbers and any liquid or solid wastes removed off site are covered under L5.2.1 Annual Environmental Report conditions.	

DECISION TABLE

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
Process monitoring				
Ambient groundwater quality monitoring	L3.8.1	OSC	<p>The premises risk assessment with respect to the management of effluent discussed under general and operational conditions above, determined there is a moderate residual risk rating of infiltration impacts on groundwater. In consideration of the nearby sensitive receptor, Marbellup Brook, in a P2 priority area for water source protection, the following licence conditions have been set to establish an ambient groundwater monitoring program.</p> <p>L3.8.1 has been added to the licence to monitor the impacts on groundwater from the treatment and storage of effluent in a clay lined pond and burial of carcasses and stormwater controls.</p> <p>Improvement conditions (IR2 & IR3) have been set requiring the installation of two new monitoring bores close to the SW and SE boundaries of the existing wastewater treatment pond (MB2 & MB3) to enable ambient groundwater monitoring to commence. The existing piezometer installed in 2007 on the western boundary of the Premises has been added to the bore monitoring program with monitoring data from these 3 bores intended to establish whether there is any indication of impacts on groundwater quality attributable to leakage from the existing wastewater treatment pond that could potentially impact on water quality of the nearby adjacent sections of Marbellup Brook.</p> <p>L3.8.1 sets out the requirement for quarterly monitoring of two new bores (MB2 and MB3), the existing piezometer on the mid-western boundary (MB4) and the up gradient production bore (MB1). MB1 will provide background groundwater quality data to compare against results from the other three monitoring bores. There is one production bore located close to the residence near the northern boundary of the Premise (MB1). This bore has a depth of 33 metres and standing water levels varying from approximately 12 to 14 metres below ground level (BGL)</p>	



DECISION TABLE

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p>annually. No groundwater quality testing of the house bore has been undertaken. Water from this bore is used for the hosing down of piggy sheds.</p> <p>Two shallow monitoring bores (piezometers) were installed in 2007/2008, one close to the mid-western boundary (MB4) of the Premises where the average standing water level is thought to be 10 metres BGL. The second piezometer approximately 140m NE of the pond has an average standing water level of 12m BGL. However, since the piezometers were installed there has been no formal monitoring of Standing Water Levels or groundwater quality testing undertaken.</p> <p>No conditions are necessary for this Premises in this section.</p>	
Meteorological monitoring	L3.9	OSC		
Improvements	L4 IR1 – IR7	OSC/ NSC	<p>The following improvement requirements have been added to the licence to address key issues of site operational procedures, environmental monitoring, the effluent collection and treatment system and related odour issues, to bring the Premises in line with current industry management as documented in the NEPG and to address the odour and potential infiltration to groundwater risks identified in the relevant sections above:</p> <p>IR1 – Requires a permanent survey marker to be installed in the existing wastewater treatment pond to ensure that the freeboard can be readily measured, thus ensuring the pond is carefully monitored, operates within its required capacity and does not overtop. Because the Licensee does not have approval to discharge excess wastewater to land, any excess water within the wastewater treatment pond will need to be transported off the property via a licensed controlled waste carrier to a licensed disposal site. The pond marker will assist in determining when this management action needs to occur to avoid overtopping;</p> <p>IR 2, IR3 – Requires the installation of two new monitoring bores adjacent to the existing wastewater treatment pond to determine groundwater quality in the vicinity of this pond, and by comparison with up gradient groundwater quality,</p>	<p>Application supporting documentation</p> <p>General provisions of the <i>Environmental Protection Act 1986</i></p> <p>National Environmental Guidelines for Piggeries.</p> <p>Australian Pork Ltd. Second Edition (Revised) 2010</p> <p>Marbellup Brook Catchment Area Drinking Water Source Protection Plan.</p> <p>Department of Water. Water Resource</p>



DECISION TABLE

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p>monitor for potential impacts of pond leakage which might impact on water quality within the nearby Marbellup Brook. Data from the bore logs will provide details on the soil profile adjacent to the pond. IR3 also includes a requirement to sub sample and test the clay layer from each of the new bores for permeability. This will provide critical information on the suitability of the clay for potential new pond construction as well as indicating the likely permeability characteristics of the existing WWTP which was built from the in situ clay;</p> <p>IR4 – The long history of odour issues and complaints for the Premises indicate that past efforts by the piggery operator to address odour concerns have been inadequate. IR 4 therefore requires the preparation of an Odour Management Plan for the Premise to be submitted to DER, in accordance with the NEGP industry guidelines;</p> <p>IR5 – The practice of carcass burial for disposal of pig carcasses is the least preferred disposal methodology recommended by the NEGP guidelines, but when in use, has a set of minimum procedural requirements to minimise risks of emissions and manage vermin. Similarly, according to the NEGP, an effective wastewater pond treatment system includes separate ponds that utilise anaerobic, aerobic and/or facultative and evaporative treatments, with ponds inter-linked, thus providing more than primary treatment of the piggery effluent prior to its evaporation or disposal. Recycled flush waters would preferably be sourced from a third evaporation pond, or otherwise a pond where secondary treatment has taken place.</p> <p>Currently there is no permanent hardstand area established to receive sludge from either a solids separation system or from the occasional de-sludging of ponds.</p> <p>Therefore, IR5 requires a major review of waste management at the Premises and</p>	<p>Protection Series. Report No. 67, April 2007</p> <p>Code of Practice for the Storage and Handling of Dangerous Goods, Department of Mines and Petroleum, Government of Western Australia</p>



DECISION TABLE

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
Information			submission of a Waste Management Plan to include proposed infrastructure improvements with all required design and construction details; and IR6, IR7 - Current fuel storage at the Premises includes an outdoor 5,000 litre diesel tank with no secondary containment infrastructure. IR6 & IR7 are OSC's related to requiring a review of any requirements to upgrade chemical and fuel storage at the Premises.	
	L5	OSC / NSC	The OSC 5.1.4 for implementing a complaints management system has been added due to the history of odour complaints for this Premise. NSC conditions for Annual Environmental Reporting requirements (L5.2.1) include reporting on monthly pig numbers kept on and leaving the Premises and carcass burial records. Results from the quarterly groundwater monitoring program and volumes of any liquid wastes or sludges removed from the Premises also require reporting. NSC requirements for notification for taking the wastewater treatment pond offline and subsequently coming back online, have been set should there be a requirement to tanker wastewaters off-site, repair damaged infrastructure or allow for sludge removal. As there is a licence condition to keep maximum pig numbers at 1,000 pigs, L5.3.1 requires notification according to a specified timeframe if the upper limit on pig numbers is exceeded. The OSC on a calibration report and breach of limits are also included. L5.2.2 requires the Licensee to assess the groundwater monitoring results against previous monitoring results.	Application supporting documentation



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
10/03/2014	Application advertised in West Australian	2 phone calls from nearby residents who were advised of the application details and licensing process. Subsequent written submissions received on 14/03/2014 and 30/03/2014 which raised the following concerns: i. Objection to location of piggery and any expansion ii. Odour issues/poor effluent management iii. Machinery noise from Premises past 10pm iv. Adequate protection of Marbellup Brook / potential for pollution of surface water and groundwater	Agreed to send draft licence for review. Licence draft addressing concerns: <ul style="list-style-type: none">• Pig numbers limited• No effluent or solids disposal to land allowed• Requirement for Odour Management Plan & odour complaints management system and reporting• New monitoring bores and annual bore monitoring program• Major infrastructure review and improvement required to meet NEGP
7/03/2014 & 17/03/2014	Application referred to interested parties listed: Department of Water City of Albany Torbay Catchment Group Redmond Residents Association Nearby & neighbouring rural properties & residences	Torbay Catchment Group (TCG) submitted preliminary comments by email on 28/03/14 Comments related to ensuring that water quality within the Marbellup Brook and its tributaries is protected & consideration of impacts on local residents. Licence restrictions to ensure; <ul style="list-style-type: none">• adequate water holding capacity and permeability of storage ponds;• flood mitigation;• address potential for nitrification of Marbellup Brook catchment; and• potential impacts on local residents - irrigation activities / odour emissions	All key stakeholders requested to receive draft licence for review. Licence draft addressing concerns: <ul style="list-style-type: none">• Pig numbers limited• Standard conditions for pond management applied• No effluent or solids disposal to land allowed• Requirement for Odour Management Plan & odour complaints management system and reporting• New monitoring bores and annual bore monitoring program• Major infrastructure review and improvement required to meet NEGP



Date	Event	Comments received/Notes	How comments were taken into consideration
29/05/2014	Proponent sent a copy of draft instrument	Comments received on 16/06/2014. Queries raised re: i. The necessity and explanation for the requirement to install two new bores adjacent to the wastewater treatment pond; and ii. Limiting pig numbers to 1,000	DER reply correspondence sent on 17/06/2014: i. With further explanation of new bore requirement, including minor edits to the Decision Document to clarify purpose of new bores and ii. Reference to relevant sections of the Decision Document explaining restriction of pig numbers to 1,000 No changes to draft Licence considered necessary.
29/05/2014	5 Stakeholders sent copy of draft instrument	Comments received from 2 x nearby residents and Torbay Catchment Group: i. Objections to location of the piggery with respect to Redmond townsite and nearby residents, including odour issues; ii. Concern re how close piggery is to Marbellup Brook and risks to water quality for a potential drinking water source; and iii. Objection to allowable pig numbers. Comments from Department of Water: i. Confirmation of site being located within a priority two (P2) area and associated management requirements; ii. Incompatibility of intensive piggery in PDWSA, though exception for existing land use. Future intensification or expansion would not be supported iii. Noted lack of any groundwater or other water quality monitoring. Requested additional existing bore be incorporated in monitoring program, adding ammonium-N and	DER considered the general comments provided by stakeholders, acknowledging different residential buffer distances recommended by two different guidelines (EPA and NEGP). The detailed Odour Management Review required by improvement condition IR4 is expected to confirm minimum required residential buffer distance specific to the local conditions. Reduced pig numbers will reduce the volume of waste generated and assist with odour management. Changes have been made to groundwater bores required for monitoring (addition of existing bore), nitrogen parameters to be tested and the frequency of monitoring required in response to the Department of Water submission which supports a more rigorous assessment of any risks to water quality in Marbellup Brook associated with the piggery. Improvement condition IR3 modified, adding requirement for permeability testing of in situ clay. The piggery type has been captured in the Licence to remain consistent with the Planning Scheme Consent limit of 150 sows (farrow to finish piggery). Any changes to this will require further formal assessment and approval.



Date	Event	Comments received/Notes	How comments were taken into consideration
		<p>nitrite –N analytes to be tested. Also quarterly monitoring to adequately assess any potential impacts on Marbellup Brook</p> <p>iv. Suggested a requirement to test the permeability of existing WWTP clay liner</p> <p>v. Support improvement program conditions</p> <p>City of Albany provided Planning Consent information, confirming that planning consent was given on 24 April 1996 for a 150 sow piggery.</p>	
02/07/2014	Revised draft sent to proponent to review changes	No formal comments received	N/A



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				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High