Government of Western Australia
Department of Environment Regulation

Licence

Environmental Protection Act 1986, Part V

Licensee: Derby Industries Pty Ltd

Licence: L6932/1988/11

Registered office: 6 Short Street
FREMANTLE WA 6160

ACN: 009 033 612

Premises address: C M Farms - Nambeelup
Lot 89 on Plan 741 and Lot 109 on Plan 741
Gull Road
NAMBEELUP WA 6207 as depicted in Schedule 1

Issue date: Thursday 21 October 2010

Commencement date: Thursday 27 October 2010

Expiry date: Wednesday 26 October 2016

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

Category number	Category description	Category production or design capacity	Approved Premises production or design capacity
2	Intensive piggery: premises on which pigs are fed, watered and housed in pens.	1,000 animals or more	22,000 animals

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

Date signed: 28 January 2016
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Jonathan Bailes
Manager Licensing (Process Industries)
Officer delegated under section 20
of the *Environmental Protection Act 1986*

Contents

Introduction

This Introduction is not part of the Licence conditions.

The 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. The DER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

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

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

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

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

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.

- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.

- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

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

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

Licence fees
If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non payment of annual licence fees will result in your licence ceasing to have effect 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
Derby Industries Pty Ltd (the Licensee) is part of the Craig Mostyn Group of companies. The company took over as Licensee of CM Farms - Nambeelup in 2009, where the previous owner was George Weston Foods. George Weston Foods retains ownership of the land and Derby Industries Pty Ltd operates the piggery under a lease agreement.

CM Farms – Nambeelup (Nambeelup) is part of a larger site formerly called Wandalup Farms which includes the CM Farms – Nambeelup piggery and two independently licenced compost/soil blending operations known as C-Wise (L8410/2009/3) and Mushroom Exchange (L7210/1997/10). Organic wastes including spent bedding, pig carcasses, pond sludge and solids from the solids reduction system are taken by C-Wise for further processing. C-Wise also takes a portion of treated piggery effluent from piggery ponds 5 and 6 for use in their composting processes.

***Location*:**
The Premises is located in an area zoned rural; it is surrounded by predominantly rural zoned land with the closest neighbour approximately 246m south-west of the Premises boundary, 1,100m from the piggery sheds and 1,235m south-west of the anaerobic pond. There is a light aircraft strip located south of the Premises boundary and an abattoir located on the opposite side of Lakes Road, approximately 2 to 2.5km south-east of the piggery sheds.

Keralup is a proposed Department of Housing and Works development that may encroach on Wandalup Farms to the north. It is important that the CM Farms – Nambeelup Licence reflect the need for long-term and ongoing environmental improvements in lieu of likely encroachment and a need for sound wastewater management practices.

Surface Water, Groundwater and Soils:
The Premises is located within the *Environmental Protection (Peel Inlet-Harvey Estuary) Policy 1992* area which covers the Peel Inlet – Harvey Estuary Catchment that is under pressure from nutrient inputs and eutrophication.

The Serpentine River is 2.7km west-northwest at the closest point to the Premises boundary. The Line String Drain, which feeds into the Serpentine River, is located on the northern Premises boundary and it is approximately 645m from the wastewater ponds. The Nambellup Brook is located 1,890m south of the Premises.

Historically, the piggery was a significant point source contributor of nutrients to the Peel-Harvey Catchment through a wastewater discharge to the Line String Drain. The piggery has not had a wastewater discharge into the drain (refer Point D in Schedule 1) since approximately 2009 due to improvements in stormwater and wastewater management, and climatic factors.

The geology is made up of predominantly Bassendean Quartz sands. Groundwater across the site varies seasonally between 0.2m and 7.6m below ground level. There are eight bores monitored on a six-monthly basis.

Piggery Operations:

Nambeelup includes an intensive piggery (conventional sheds) as well as pigs raised in deep litter sheds (extensive). The average production level for 2014 for the intensive operations was 11,528 animals at any one time, based on an annual throughput of 138,338 animals. This is an average of 10,103 standard pig units (SPU). Weaners are raised in the extensive sheds and amount to an average of 2,900 per month. Emissions resulting from the solid wastes (spent straw, faeces, excess food and carcasses) from the deep litter sheds are regulated by conditions of the licence.

The CM Farms site currently contains a total of four ponds used for wastewater and solids processing. Ponds 3 and 4 are not in use following the construction of Ponds 2, 5 and 6:

1. Pond 1: Anaerobic;
2. Pond 2: Facultative/Aerobic;
3. Pond 5: Aerobic;
4. Pond 6: Aerobic

The conventional piggery sheds are designed with concrete bases where pig excreta is able to enter underfloor drains and channels through grates in the pig pens. Excreta is primarily in liquid form with a high solid fraction. Treated wastewater from Pond 5 is piped into tipper buckets which fill over the course of approximately 3 hours, at which point they tip and flush excreta from the underfloor drains. The waste is gravity-fed underground through a series of concrete tanks with inspection manholes.

The first tank has an emergency overflow where, in the event of a blockage, waste can be directed to an above ground chute and discharged onto a graded concrete pad near the solids reduction system. During the emergency overflow, waste would be gravity fed into the stirrer tanks and subsequently into solids reduction.

During normal operating conditions, waste enters a primary solids removal cage to capture large foreign objects prior to entering the stirrer tanks. There is also an emergency overflow at this point whereby all wastewater can bypass the solids reduction system and be directed to Pond 1 to prevent an overflow to the environment.

From the primary solids removal cage, wastewater is gravity fed into two stirrer tanks which consist of concrete compounds with mechanical stirring rods. A third concrete tank with a buoyant pump acts as an overflow tank where wastewater is directed back through the stirring tanks. Wastewater is pumped to one of two rotary screw press separators which separate liquid from the solids to produce a solid cake. A dry solid fraction containing manure and pig hair accumulates on the graded hardstand pad and is collected by C-Wise and used in their compost production process on site. Wastewater from the rotary screw presses is directed to the fan separator tank pending discharge to the anaerobic pond.

The wastewater system consists of Pond 1 (anaerobic) and Ponds 2, 5 and 6 which are aerobic and lined with HDPE. Treated wastewater from Pond 5 is pumped to the sheds for use as flushing water. Pond 1 is periodically desludged using an auger with a stirring component to enable liquid slurry to be sucked out and dewatered in a contained drying bed. The liquid portion is directed back into the anaerobic pond and the solid portion is dried and collected by C-Wise and used in their composting processes along with wastewater from Pond 5.

CM Farms also has several deep litter sheds (eco-shelters) whereby spent bedding is periodically removed to C-Wise for reuse. Pig carcasses are placed in a compost tunnel with compost medium placed on top to facilitate biological breakdown. This tunnel has a concrete base, bunding and a roof. The tunnel is graded to direct leachate towards the solids separation system.

Odour is a significant environmental factor for all operators at this location. DER has received several odour complaints during 2015, where the complainants were impacted by strong odours and investigations are on-going to determine the likely source of emissions.

Licence amendment:
This Licence is the result of an amendment sought by Derby Industries to allow the construction of a second anaerobic pond, to be referred to as Pond 0. The current anaerobic pond is at full capacity and a second anaerobic pond will allow the existing pond (Pond 1) to dry out and be de-sludged where the sludge will be used by C-Wise in their composting process. Once constructed, the two anaerobic ponds will operate in tandem where the resting pond will be desludged to improve operational efficiency. Desludging activities have not been assessed as part of this licence amendment.

Pond 0 is proposed to be located in an area previously used as a borrow pit for sand. The dimensions of the pond will be 65m x 45m x 5m depth. The pond will be lined with 1mm High-Density Polyethylene (HDPE) with welded joints, where the integrity of the joints will be vacuum tested.

This licence amendment will assess the impacts from construction and operation of the proposed Pond 0 only. DER intends on reviewing the licence following the completion of odour investigations which will be completed prior to the expiry of the current licence on 26 October 2016.

The licences and works approvals issued for the Premises since October 2005 are:

Instrument Log

Instrument	Issued	Description
L6932/1988/10	17/10/2005	Licence re-issue
L6932/1988/10	22/01/2009	Licence transferred from George Western Foods to Derby Industries Pty Ltd
L6932/1998/11	21/10/2010	Licence re-issue
W4720/2010/1	21/10/2010	Works Approval – Decommissioning Ponds 3 & 4 and construction of Pond 6 – HDPE lined
W4997/2010/1	01/09/2011	Works Approval – Pond 5 (aerobic) refurbishment, extension and lined with HDPE
L6932/1988/11	15/12/2011	Licence amendment following WA Composts Pty Ltd obtaining separate licence to operate on site (L8410/2009)
W5679/2014/1	17/07/2014	Works Approval – Pond 2 (aerobic) lined with HDPE
L6932/1988/11	23/10/2015	Licence Amendment – extend licence period for a period of 12 months
L6932/1988/11	28/01/2016	Licence amendment to allow construction of a second anaerobic pond

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 each year;

'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 5667.6' means the Australian Standard AS/NZS 5667.6 *Water Quality – Sampling – Guidance on sampling of rivers and streams;*

'AS/NZS 5667.10' means the Australian Standard AS/NZS 5667.10 *Water Quality – Sampling – Guidance on sampling of waste waters;*

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

'**ATS 4747'** means the Australian Technical Specification ATS 4747 *Meters for non-urban water supply;*

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

'average rainfall' means an annual rainfall of 875mm per calendar year as measured at the Bureau of Meteorology Monitoring Station in Mandurah, Western Australia;

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

'CEO' for the purpose of correspondence means:

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

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

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

'Licence' means this Licence numbered L6932/1988/11 and issued under the Act;

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

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

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

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

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

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

'six monthly' means the 2 inclusive periods from 1 January to 30 June and 1 July to 31 December in each year; and

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

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.

1.1.5 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 General conditions

1.2.1 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.

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

1.2.3 The Licensee shall:
(a) implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the Premises; and
(b) treat contaminated or potentially contaminated stormwater as necessary prior to being discharged from the Premises.[1]

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 a wastewater treatment system.

1.3.2 The Licensee shall maintain an effective wastewater treatment system that shall include:
(a) a solids separation system; and
(b) an impervious pond system for treatment of wastewater to reduce nitrogen and biological oxygen demand levels.

1.3.3 The Licensee shall ensure that wastewater is managed such that:
(a) it only bypasses the solids separation system in the event of an emergency or other such malfunction to prevent an overflow of wastewater into the environment; and
(b) all wastewater whether treated by the solids separation system or not is only directed to Pond 1 or Pond 0 once constructed.

1.3.4 The Licensee shall ensure that wastes are only stored and/or treated within vessels, compounds or surfaces provided with the infrastructure detailed in Table 1.3.4.

Table 1.3.4: Containment infrastructure

Storage/treatment vessel or compound	Material	Infrastructure requirements
Ponds 1, 2, 5, 6 and Pond 0 when constructed	Wastewater	Lined and maintained to achieve a permeability of at least $1x10^{-9}$ m/s or equivalent.
Solids separation system	Wastewater and solids	A bunded hardstanding area that prevents surface run-off of leachate and sludge to the environment and which returns sludge leachate to the treatment process.
Sludge drying beds	Pond sludge	
Pig carcass processing tunnel	Solids (pig carcasses)	

1.3.5 The Licensee shall manage the wastewater treatment ponds such that:
(a) a minimum top of embankment freeboard of 300mm is maintained;
(b) stormwater runoff is prevented from causing the erosion of outer pond embankments;
(c) overtopping of the wastewater treatment ponds does not occur except as a result of an extreme rainfall event (greater than 1 in 10-year event of 72 hours duration);
(d) vegetation and floating debris (emergent or otherwise) is prevented from encroaching onto pond surfaces or inner pond embankments;
(e) trapped overflows shall be maintained between treatment ponds to prevent carry-over of surface floating matter to subsequent ponds; and
(f) no overflow leaves the Premises.

1.3.6 The Licensee shall ensure that emergency wastewater concrete drains and channels from the conventional piggery sheds are kept clear and free of vegetation and other debris.

1.3.7 The Licensee shall ensure only treated wastewaters are disposed of in accordance with the following:
(a) via evaporation;
(b) reused for washdown;
(c) disposed of to a facility licensed to accept the wastewater; or
(d) discharged in accordance with Condition 2.2.1.

1.3.8 The Licensee shall ensure that pig carcasses (except where managed in the processing tunnel), spadeable animal waste and other piggery solids are disposed of to a facility licensed to accept the waste.

2 Emissions

2.1 General

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

2.2 Emissions to surface waters

2.2.1 The Licensee is permitted, subject to conditions in the Licence, to emit wastes to water from the emissions points listed in Table 2.2.1 and identified in the Map of Emission Points in Schedule 1.

Table 2.2.1: Emission points to surface water

Emission point reference [and location on Map of emission points]	Description	Source including abatement
Point B	Discharge point to stormwater drain	Treated wastewaters from Pond 5

2.2.2 The Licensee shall not cause or allow point source emissions to surface water greater than the limits listed in Table 2.2.2.

Table 2.2.2: Point source emission limits to surface water

Emission point reference[and location on Map of emission points]	Parameter	Limit (including units)	Averaging period
Point B	Total phosphorus	360 kg when rainfall is less than or equal to the average rainfall	Annual
		468 kg when rainfall is greater than the average rainfall	

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 wastewater sampling is conducted in accordance with AS/NZS 5667.10;
(c) all surface water sampling is conducted in accordance with AS/NZS 5667.6;
(d) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
(e) 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 :
(a) six monthly monitoring is undertaken at least 5 months apart; and
(b) annual monitoring is undertaken at least 9 months apart.

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 Monitoring of point source emissions to surface water

3.2.1 The Licensee shall undertake the monitoring in Table 3.2.1 according to the specifications in that table.

3.2.2 All sampling of volumetric flow rate in Table 3.2.1 shall be conducted in accordance with ATS 4747.

Table 3.2.1: Monitoring of point source emissions to surface water				
Emission point reference and location on Map of monitoring locations	**Parameter**	**Units**	**Reference period**	**Frequency**
Point B	Volumetric flow rate	m^3/s	Length of discharge	Continuously during any discharge from Pond 5
	Total phosphorous	mg/L and kg	Spot samples	Once within 24hours of the commencement of discharge from Pond 5 and weekly thereafter until the cessation of discharge
	Total nitrogen, ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, biological oxygen demand, total dissolved solids, total suspended solids	mg/L		
	pH	pH units		
	Escherichia coli	Colony forming units per 100 millilitres		

3.3 Process monitoring

3.3.1 The Licensee shall undertake the monitoring in Table 3.3.1 according to the specifications in that table.

Table 3.3.1: Process monitoring			
Monitoring point reference	**Process description**	**Parameter**	**Reference period**
-	Pigs housed	Number of pigs also to be expressed in Standard Pig Units	Monthly maximum

3.4 Ambient environmental quality monitoring

3.4.1 The Licensee shall undertake the monitoring in Tables 3.4.1 and 3.4.2 according to the specifications in those tables.

Table 3.4.1: Ambient environmental quality monitoring				
Monitoring point reference and location on Map of monitoring locations	**Parameter**	**Units**	**Averaging period**	**Frequency**
Point D	Volumetric flow rate	m^3/s	Spot sample	Once within 24hrs of the commencement of discharge from Pond 5 and weekly thereafter until 14 days after the cessation of discharge
	Total phosphorous, total nitrogen, ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, biological oxygen demand, total dissolved solids, total suspended solids	mg/L		
	pH	pH units		
	Escherichia coli	Colony forming units per 100mL		

Table 3.4.2: Monitoring of ambient groundwater quality				
Monitoring point reference and location on Map of monitoring locations	**Parameter**	**Units**	**Averaging period**	**Frequency**
MB3S, MB4S, MB6S, MB7S, MB8S, MB9S, MB10S and MB11S	Standing water level (recorded immediately prior to sampling)	m(AHD)	Spot sample	Six monthly
	pH	pH units		
	Total phosphorous, total nitrogen, ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, total dissolved solids	mg/L		

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 a monitoring bore in the vicinity of the proposed anaerobic pond (Pond 0) where the bore is to be located downstream of the hydraulic direction of the groundwater flow.	Prior to construction of Pond 0
IR2	The Licensee shall undertake monitoring of the bore required in IR1 and provide background readings of the ambient groundwater quality, as required in Table 3.4.2	On completion of IR1
IR2	The Licensee shall submit to the CEO a report that provides information on the outcome of the monitoring, as required by IR2, with an assessment of the outcome of the monitoring, along with a comparison with previous monitoring results for other bores on the Premises.	During the commissioning stage and prior to operation of Pond 0

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 those following records, be retained until the expiry of the Licence and any subsequent licence:
  - (i) off-site environmental effects; or
  - (ii) matters which affect the condition of the land or waters.

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 implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

5.1.5 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 5.1.5 in the format or form specified in that table.

Table 5.1.5: 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	N1
Table 3.2.1	Volumetric flow, total phosphorous, total nitrogen, ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, BOD, total dissolved solids, total suspended solids, pH, E.coli	WR1
Table 3.3.1	Monthly maximum of pigs housed	None specified
Table 3.4.1	Volumetric flow, total phosphorous, total nitrogen, ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, BOD, total dissolved solids, total suspended solids, pH, E.coli	None specified
Table 3.4.2	Standing water level, pH, total phosphorous, total nitrogen, ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, total dissolved solids	None specified
5.1.3	Compliance	Annual Audit Compliance Report (AACR)
5.1.4	Complaints summary	None specified

Note 1: Forms are in Schedule 2

5.1.6 The Licensee shall ensure that the Annual Environmental Report also contains an assessment of the information contained within the report against previous monitoring results and Licence limits.

5.2 Notification

5.2.1 The Licensee shall submit the information in Table 5.2.1 to the CEO according to the specifications in that table.

Table 5.2.1: Notification requirements			
Condition or table (if relevant)	**Parameter**	**Reporting date (after end of the reporting period)**	**Format or form**
-	Copies of original monitoring reports submitted to the Licensee by third parties	Within 14 days of the CEOs request	As received by the Licensee from third parties
2.2.1	Surface water discharge	Part A: As soon as practicable but no later than 5PM of the next usual working day after the commencement of a discharge of wastewater through Point B. Part B: As soon as practicable	N1[1]
-	Identification of a damaged groundwater bore that results in the bore not being able to be used for monitoring	Within 7 working days	None specified

Note 1: Forms are in Schedule 2

6 Works

6.1 General works conditions

6.1.1 The Licensee shall construct the works for the proposed anaerobic pond in accordance with the documentation detailed in Table 6.1.1:

Table 6.1.1: Construction Requirements[1]		
Document	**Parts**	**Date of Document**
Licence Amendment Application Form	All	29 October 2015
Licence Amendment Supporting Information for the "Construction of Anaerobic Pond – CM Farms – Nambeelup" Licence No. 6932, Author Water Quality Monitoring	All, including Drawings and Appendices	23 October 2015

Note 1: Where the details and commitments of the documents listed in condition 6.1.1 are inconsistent with any other condition of Section 6 of this licence, the conditions of this section of licence shall prevail.

6.2 Reporting

6.2.1 The Licensee shall submit a compliance document to the CEO, following the construction of the works for the proposed anaerobic pond.

6.2.2 The compliance document shall:

(a) certify that the works were constructed in accordance with the conditions of the licence for the proposed anaerobic pond; and

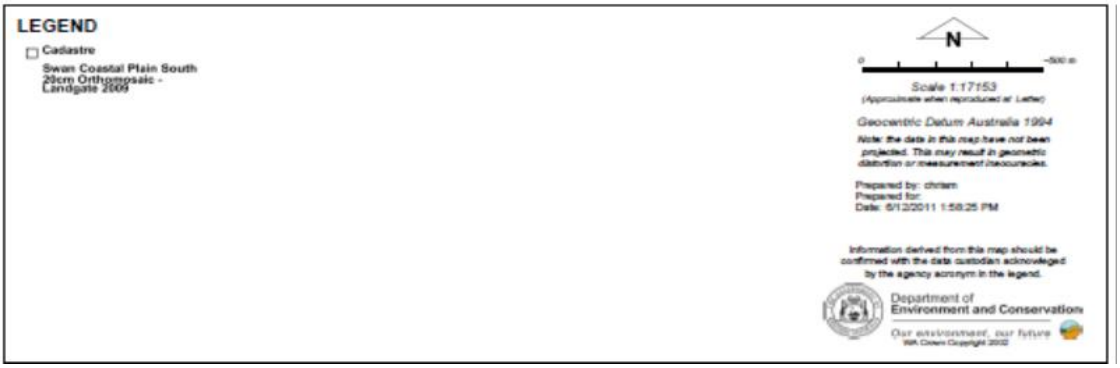
(b) be signed by a person authorised to represent the Licensee and contain the printed name and position of that person within the company.

6.2.3 The compliance document shall include a Construction Quality Assurance validation report prepared by a suitably qualified engineer, which includes details on how the anaerobic pond has been constructed according to the application and drawings, and includes relevant test certificates which demonstrate that the lining of the anaerobic pond has a hydraulic conductivity of less than 1×10^{-9} m/s.

Schedule 1: Maps

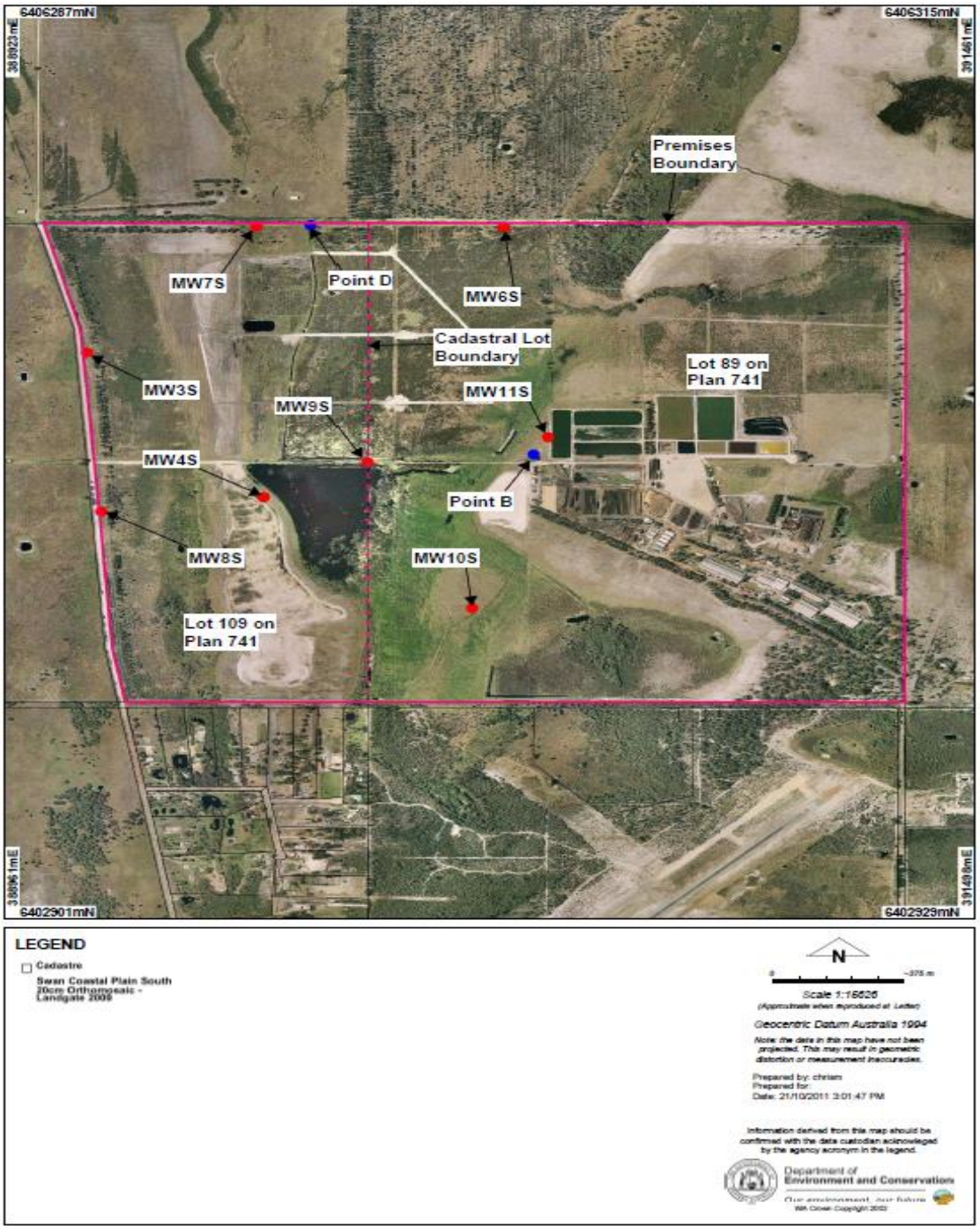
Premises map

The Premises is shown in the map below and excludes areas cross hatched in yellow. The pink line defines the Premises boundary. The definition in the map should prevail if any discrepancy exists.



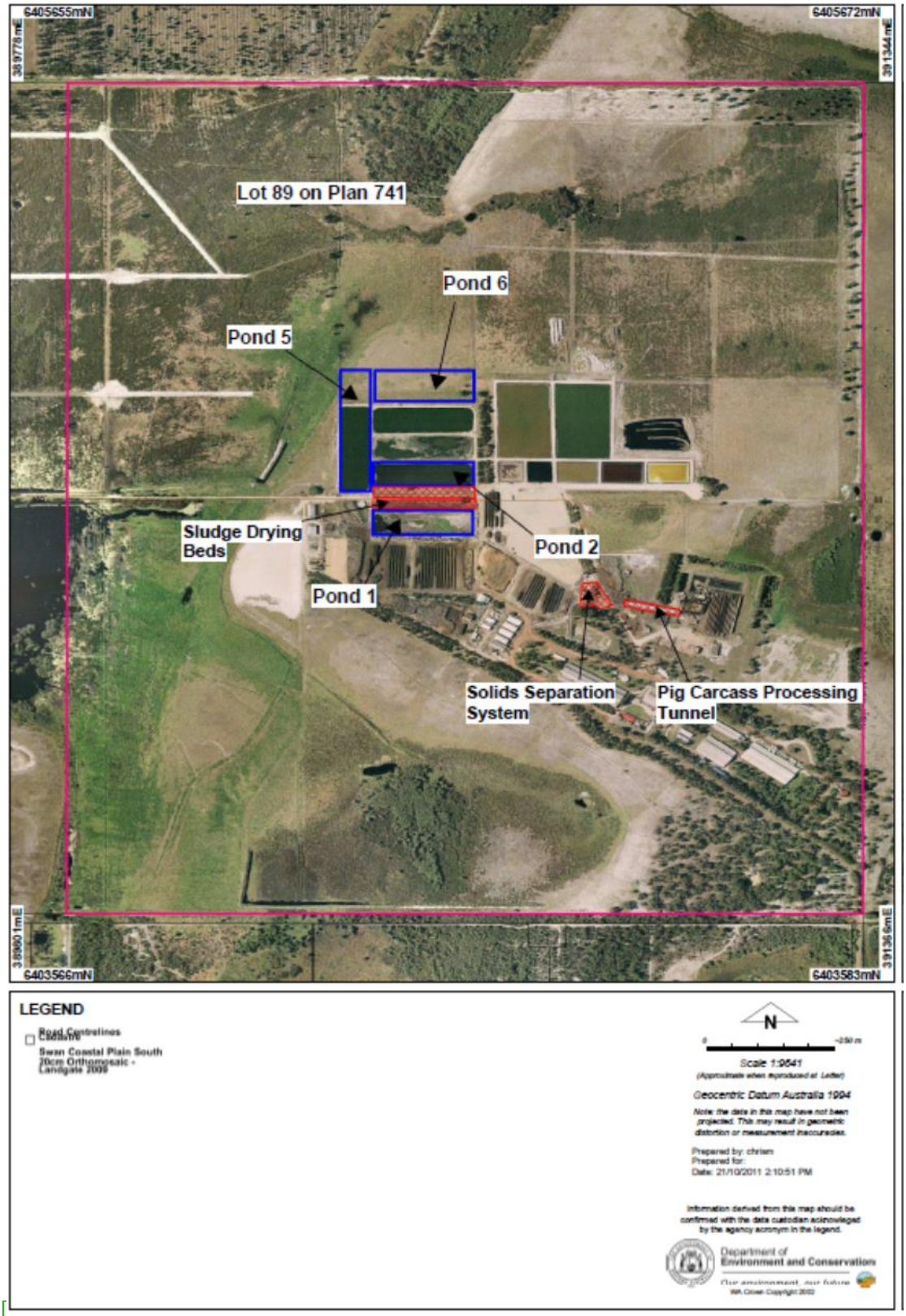
Map of emission points and monitoring locations

The location of the emission point defined in Table 2.2.1 and monitoring points defined in Tables 3.4.1 and 3.4.2 are shown below.



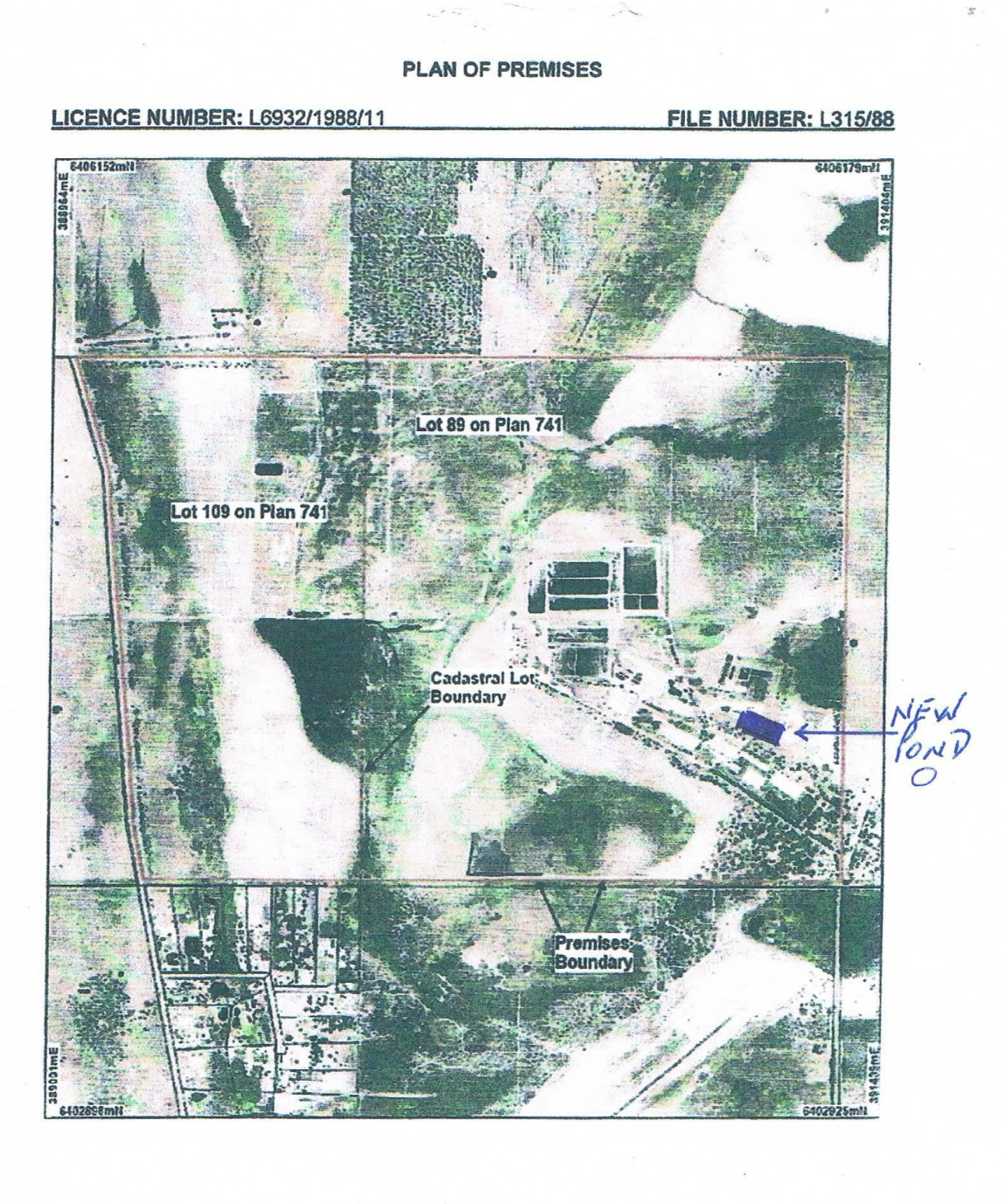
Map of storage locations

The location of the storage areas defined in Table 1.3.4 is shown below.



Map of proposed location for Pond 0

The location of proposed anaerobic pond (Pond 0) is 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: Trading as:	ABN:
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 the DER?:	
☐ Yes ☐ Reported to the DER verbally Date _____ ☐ Reported to the DER in writing Date _____	☐ No
d) Has the 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	□	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	□	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	□	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)	□	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	□	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: _____

NAME:
(printed) _____

POSITION: _____

DATE: _____/_____/_____

SIGNATURE: _____

NAME:
(printed) _____

POSITION: _____

DATE: _____/_____/_____

SEAL (if signing under seal)

Licence: **L6932/1988/11** Licensee: **Derby Industries Pty Ltd**
Form: **WR1** Period :
Name: Monitoring of point source emissions to surface water

Emission point	Parameter	Result[1]	Result[1]	Averaging period	Method	Sample date & times
Point B	Volumetric flow rate	L/s	m^3/day	Length of discharge		
	Total phosphorous	mg/L	kg	Spot sample		
	Total nitrogen	mg/L				
	Ammonia nitrogen	mg/L				
	Nitrate nitrogen	mg/L				
	Nitrite nitrogen	mg/L				
	Biological oxygen demand (BOD_5)	mg/L				
	Total dissolved solids	mg/L				
	Total suspended solids	mg/L				
	pH	pH units				
	Escherichia coli	Colony forming units per 100 mL				

Note 1: All units are referenced to STP dry

Signed on behalf of Derby Industries Pty Ltd: …….. Date: …….

Licence: **L6923/19988/11** **Licensee:** **Derby Industries Pty Ltd**
Form: **N1** **Date of breach:**

Notification of detection of the breach of a limit.

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	L6923/1988/11
Name of operator	Derby Industries Pty Ltd
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	

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 **Derby Industries Pty Ltd**	
Date	

Government of Western Australia
Department of Environment Regulation

Decision Document

Environmental Protection Act 1986, Part V

Proponent: Derby Industries Pty Ltd

Licence: L6932/1988/11

Registered office:	6 Short Street FREMANTLE WA 6160
ACN:	009 033 612
Premises address:	C M Farms - Nambeelup Lot 89 on Plan 741 and Lot 109 on Plan 741 Gull Road NAMBEELUP WA 6207
Issue date:	Thursday 21 October 2010
Commencement date:	Thursday 27 October 2010
Expiry date:	Wednesday 26 October 2016

Decision

Based on the assessment detailed in this document, the Department of Environment Regulation (DER) has decided to issue an amended licence. The DER considers that in reaching this decision, it has taken into account all relevant considerations.

Decision Document prepared by:	Nanette Schapel Licensing Officer
Decision Document authorised by:	Jonathan Bailes Delegated Officer

Contents

1. Purpose of this Document

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

2. Administrative summary

Administrative details		
Application type	Works Approval ☐ New Licence ☐ Licence amendment ☒ Works Approval amendment ☐	
Activities that cause the premises to become prescribed premises	**Category number(s)** 2	**Assessed design capacity** 22,000 animals Monthly average is 11,528 animals and 10,103 Standard Pig Units (SPU)
Application verified Application fee paid	Date: 18/08/2015 Date: 31/08/2015	
Works Approval has been complied with Compliance Certificate received	Yes☐ No☐ N/A☒ Yes☐ No☐ N/A☒	
Commercial-in-confidence claim	Yes☐ No☒	
Commercial-in-confidence claim outcome		
Is the proposal a Major Resource Project?	Yes☐ No☒	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the *Environmental Protection Act 1986*?	Yes☐ No☒	Referral decision No: Managed under Part V ☐ Assessed under Part IV ☐
Is the proposal subject to Ministerial Conditions?	Yes☐ No☒	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 *Environmental Protection Act 1986*)?	Yes☐ No☒ Department of Water consulted Yes ☐ No ☐	
Is the Premises within an Environmental Protection Policy (EPP) Area Yes☒ No☐ *Environmental Protection (Peel Inlet-Harvey Estuary) Policy 1992*		
Is the Premises subject to any EPP requirements? Yes☒ No☐ The *EP (Peel Inlet-Harvey Estuary) Policy 1992 covers* the Peel Inlet – Harvey Estuary Catchment that is under pressure from nutrient inputs and eutrophication. The environmental quality objectives of this policy limit phosphorus flowing into the estuary. Landholders are responsible for managing contributions in the policy area.		

3. Executive summary of proposal and assessment

Derby Industries Pty Ltd is part of the Craig Mostyn Group of companies; the company took over as Licensee of CM Farms - Nambeelup in 2009, where the previous owner was George Weston Foods. George Weston Foods retains ownership of the land and Derby Industries Pty Ltd operates the piggery under a lease agreement.

CM Farms – Nambeelup is part of a larger site formerly called Wandalup Farms which includes the CM Farms – Nambeelup piggery and two independently licensed compost/soil blending operations known as C-Wise (L8410/2009/3) and Mushroom Exchange (L7210/1997/10). Organic wastes including spent bedding, pig carcasses, pond sludge and solids from the solids reduction system at CM Farms are taken by C-Wise for further processing. C-Wise also takes a portion of treated piggery effluent from piggery ponds 5 and 6 for use in their composting processes.

***Location*:**
The Premises is located in an area zoned rural; it is surrounded by predominantly rural zoned land with the closest neighbour approximately 246m south-west of the Premises boundary, 1,100m from the piggery sheds and 1,235m south-west of the anaerobic pond. There is a light aircraft strip located south of the Premises boundary and an abattoir located on the opposite side of Lakes Road, approximately 2 to 2.5km south-east of the piggery sheds.

Keralup is a proposed Department of Housing and Works development that may encroach on the site to the north. It is important that the CM Farms – Nambeelup Licence reflect the need for long-term and ongoing environmental improvements in lieu of likely encroachment and a need for sound wastewater management practices.

Surface Water, Groundwater and Soils:
The Premises is located within the *Environmental Protection (Peel Inlet-Harvey Estuary) Policy 1992* area which covers the Peel Inlet – Harvey Estuary Catchment that is under pressure from nutrient inputs and eutrophication.

The Serpentine River is 2.7km west-northwest at the closest point to the Premises boundary. The Line String Drain, which feeds into the Serpentine River, is located on the northern Premises boundary and is approximately 645m from the wastewater ponds. The Nambellup Brook is located 1,890m south of the Premises.

Historically, the piggery was a significant point source contributor of nutrients to the Peel-Harvey Catchment through a wastewater discharge to the Line String Drain. However, the piggery has not had a wastewater discharge into the drain (refer Point D in Schedule 1 of the Licence) since approximately 2009 due to improvements in stormwater and wastewater management and climatic factors.

The geology is made up of predominantly Bassendean Quartz sands.

Groundwater across the site varies seasonally between 0.2m and 7.6m below ground level. There are eight bores monitored on a six-monthly basis.

Piggery Operations:
The Nambeelup facility includes an intensive piggery (conventional sheds) as well as pigs raised in deep litter sheds (extensive). The average production level for 2014 for the intensive operations was 11,528 animals at any one time, based on an annual throughput of 138,338 animals. This is an average of 10,103 standard pig units (SPU). Weaners are raised in the extensive sheds and amount to an average of 2,900 per month.

Emissions resulting from the solid wastes (spent straw, faeces, excess food and carcasses) from the deep litter sheds are regulated by conditions of the licence.

The conventional piggery sheds are designed with concrete bases where pig excreta is able to enter underfloor drains and channels through grates in the pig pens. Excreta is primarily in liquid form with a high solid fraction. Treated wastewater from Pond 5 is piped into tipper buckets which fill over the course in approximately 3 hours, at which point they tip and flush excreta from the underfloor drains. The waste is gravity-fed underground through a series of concrete tanks with inspection manholes.

The first tank has an emergency overflow where, in the event of a blockage, waste can be directed to an above ground chute and discharged onto a graded concrete pad near the solids reduction system. During the emergency overflow, waste would be gravity fed into the stirrer tanks and subsequently into solids reduction.

During normal operating conditions, waste enters a primary solids removal cage to capture large foreign objects prior to entering the stirrer tanks. There is also an emergency overflow at this point whereby all wastewater can bypass the solids reduction system and be directed to Pond 1 to prevent an overflow to the environment.

From the primary solids removal cage, wastewater is gravity fed into two stirrer tanks which consist of concrete compounds with mechanical stirring rods. A third concrete tank with a buoyant pump acts as an overflow tank where wastewater is directed back through the stirring tanks. Wastewater is pumped to one of two rotary screw press separators which separate liquid from the solids to produce a solid cake. A dry solid fraction containing manure and pig hair accumulates on the graded hardstand pad and is collected by C-Wise and used in their compost production process on site. Wastewater from the rotary screw presses is directed to the fan separator tank pending discharge to the anaerobic pond.

The wastewater system consists of Pond 1 (anaerobic) and Ponds 2, 5 and 6 which are aerobic and lined with HDPE. Treated wastewater from Pond 5 is pumped to the sheds for use as flushing water. Pond 1 is periodically desludged using an auger with a stirring component to enable liquid slurry to be sucked out and dewatered in a contained drying bed. The liquid portion is directed back into the anaerobic pond and the solid portion is dried and collected by C-Wise and used in their composting processes along with wastewater from Pond 5.

CM Farms also has several deep litter sheds (eco-shelters) whereby spent bedding is periodically removed to C-Wise for reuse. Pig carcasses are placed in a compost tunnel with compost medium placed on top to facilitate biological breakdown. This tunnel has a concrete base, bunding and a roof. The tunnel is graded to direct leachate towards the solids separation system.

Odour is a significant environmental factor for all operators at this location. DER has received several odour complaints during 2015, where the complainants were impacted by strong odours and investigations are on-going to determine the likely source of emissions.

Licence amendment:
This Licence is the result of an amendment sought by Derby Industries to allow the construction of a second anaerobic pond, to be referred to as Pond 0. The current anaerobic pond is at full capacity and a second anaerobic pond will allow the existing pond (Pond 1) to dry out and be de-sludged where the sludge will be used by C-Wise in their composting process. Once constructed, the two anaerobic ponds will operate in tandem where the resting pond will be desludged to improve operational efficiency. Desludging activities have not been assessed as part of this licence amendment.

Pond 0 is proposed to be located in an area previously used as a borrow pit for sand. The dimensions of the pond will be 65m x 45m x 5m depth. The pond will be lined with 1mm High-Density Polyethylene (HDPE) with welded joints, where the integrity of the joints will be vacuum tested.

This licence amendment will assess the impacts from construction and operation of the proposed Pond 0 only. DER intends on reviewing the licence following the completion of odour investigations which will be completed prior to the expiry of the current licence on 26 October 2016.

4. Decision table

All applications are assessed in line with the *Environmental Protection Act 1986* (EP Act), the *Environmental Protection Regulations 1987* and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
General conditions	1.2.1 to 1.2.3	Conditions 1.2.1 to 1.2.3 in the licence have been retained. DER has considered whether the risk profile of emissions and discharges from the premises has significantly changed since the licence was granted. No significant changes have occurred to emissions for which these conditions relate.	
Premises operation	L1.2.1 to L1.2.8	Conditions 1.2.1 to 1.2.8 have been retained in the licence relating to the disposal of all wastewaters from piggery operations, the operation of the wastewater treatment system and infrastructure requirements, the management of the wastewater treatment ponds, drainage, disposal of treated wastewater and disposal of carcasses. The intent of these conditions is to minimise potential fugitive emissions to groundwater. Please refer to the 'fugitive emissions to groundwater' risk assessment in Appendix A for further details. Conditions 1.2.3 and 1.2.4 has been updated to include Pond 0 and detail the minimum infrastructure requirements.	L6932/1988/11
Emissions general	L2.1.1	Descriptive limits are set through condition 2.2.2 of the licence and, therefore, condition regarding recording and investigation of exceedances of limits has been included.	L6932/1988/11
Point source emissions to air including monitoring	N/A	DER has considered whether the risk profile of emissions and discharges from the premises has significantly changed since the licence was granted. No significant changes have occurred to point source emissions to air. Construction and operation of Pond 0 will not result in point source emissions to air. No conditions are considered necessary.	
Point source emissions to surface waters including	L2.2.1 L2.2.2	**Construction:** No point source emissions to surface waters are expected during construction of Pond 0.	L6932/1988/11 *Environmental Protection*

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
monitoring		**Operations**: The operation of an additional anaerobic pond is not related to an increase in pig numbers or capacity on site. Installation of Pond 0 will allow the two anaerobic ponds to operate alternately and will not increase the amount of wastewater produced at the premises. As such the environmental risk from discharge to surface water is not expected to change as a result of this proposal. Conditions L2.2.1 and 2.2.2 have been retained on the licence which authorise discharge Point B and limits phosphorus loading of wastewater.	*(Unauthorised Discharges) Regulations 2004*
Point source emissions to groundwater including monitoring	N/A	DER has considered whether the risk profile of emissions and discharges from the premises has significantly changed since the licence was granted. No significant changes have occurred to point source emissions to groundwater. Construction and operation of Pond 0 will not result in point source emissions to groundwater. No conditions are considered necessary.	
Emissions to land including monitoring	N/A	DER has considered whether the risk profile of emissions and discharges from the premises has significantly changed since the licence was granted. No significant changes have occurred to emissions to land. Construction and operation of Pond 0 will not result in emissions to land. No conditions are considered necessary.	

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
Fugitive emissions – dust emissions	N/A	**Construction** Emission Description *Emission*: Dust emissions from earth moving equipment operational during contouring of the existing pit *Impact*: Dust from construction activities can cause a nuisance to nearby receptors where the closest resident is located 246m south-west of the Premises boundary. Minimum excavation is required as the pond will be located in a borrow pit where dimensions of the pond are approximate to the existing pit. *Controls*: Water sprinklers will be available during excavation works for dust suppression. Risk Assessment *Consequence*: Insignificant *Likelihood*: Unlikely *Risk Rating*: Low Regulatory Controls Fugitive emissions are regulated by the provisions of Section 49 of the *Environmental Protection Act 1986*. No specific conditions to limit dust emissions during construction have been included in the amended licence Residual Risk *Consequence*: Insignificant *Likelihood*: Unlikely *Risk Rating*: Low **Operation** DER has considered whether the risk profile of emissions and discharges from the premises has significantly changed since the licence was granted. No significant	*Environmental Protection Act 1986* (Section 49)

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		changes have occurred which may impact on fugitive dust emissions. The operation of Pond 0 will not result in fugitive dust emissions. No conditions are considered necessary.	
Fugitive emissions – seepage to groundwater	L3.4.1 Table 3.4.2	**Construction** No seepage to groundwater is expected during construction. **Operation** DER's assessment and decision making are detailed in Appendix A.	L6932/1988/11
Odour	N/A	**Construction** Odour emissions are not expected during construction of Pond 0. Construction activities are limited to contouring the existing burrow pit and installation of a HDPE liner. **Operation** <u>Emission Description</u> *Emission:* Odour emissions can occur from the wastewater pond system and may occur from Pond 0 once operational. The intention is to operate Pond 0 alternately with the existing anaerobic pond while the non-operational anaerobic pond is being desludged. Desludging activities are not being assessed as part of this licence amendment. *Impact:* There is the potential for odour emissions from Pond 0 which could cause a nuisance impact on nearby odour sensitive residences, where the closest resident is located 246m south-west of the Premises boundary and 1,235m south-west of the anaerobic pond. Since Pond 0 will be operated alternately with the existing anaerobic pond and there is no increase in wastewater generated on site as a result of this proposal, there is not expected to be an increased potential for odour generation. *Controls:* Solid wastes including carcasses, sludge waste and screenings from the primary screener are separated from the wastewater prior to it entering the wastewater treatment system.	*Environmental Protection Act 1986* (Section 49)

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		Risk Assessment *Consequence*: Moderate *Likelihood:* Unlikely Risk Rating: Moderate Regulatory Controls As there is no increase in throughput and associated odour as a result of this proposal, regulation of odour emissions for Pond 0 will continue under the general provisions of the EP Act. Further assessment of odour emissions from the whole premises will be completed as part of ongoing odour investigations and the detailed licence review to be completed prior to the expiry of the current licence on 26 October 2016, once further information becomes available. This assessment process may determine that additional regulatory controls beyond the provisions of section 49 of the EP Act are required and may identify potential improvement requirements for the wastewater treatment system. Residual Risk *Consequence*: Moderate *Likelihood*: Unlikely *Risk Rating*: Moderate	
Noise	N/A	**Construction**: *Emission*: Noise from construction, including excavation works and installation of HDPE liner. *Impact*: Noise emissions from construction activities can impact on nearby residents where the closest resident is located 246m south-west of the Premises boundary and 1,235m south-west of the anaerobic pond. *Controls*: Construction will be minimal as the borrow pit is the approximate size of the required pond and requires only minor contouring. Risk Assessment *Consequence*: Minor *Likelihood:* Rare Risk Rating: Low	*Environmental Protection (Noise) Regulations 1997.*

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		Regulatory Controls DER has assessed the potential for noise emissions to impact on the surrounding residents and is satisfied that potential noise emissions can be adequately managed under the *Environmental Protection (Noise) Regulations 1997.* Residual Risk *Consequence*: Minor *Likelihood*: Rare *Risk Rating*: Low **Operations**: The operation of Pond 0 is not expected to result in an increase in noise emissions from the premises. Any potential emissions during operations will be managed under the *Environmental Protection (Noise) Regulations 1997.*	
Monitoring general	L3.1.1 – L3.1.3	General monitoring conditions on the licence have been retained on the amended licence and require the Licensee to: • Monitor in accordance with the appropriate standards (L3.1.1); • Undertake six monthly monitoring at least five months apart and annual monitoring at least nine months apart (L3.1.2); and • Contact DER if calibration requirements can't be met (L3.1.3). The construction and operation of Pond 0 will not require additional monitoring conditions. Refer to 'fugitive emissions to groundwater' risk assessment in Appendix A for further details.	L6932/1988/11
Monitoring of inputs and outputs	N/A	DER has considered whether the risk profile of emissions and discharges from the premises has significantly changed since the licence was granted. No significant changes have occurred. No new conditions on monitoring inputs and outputs are considered necessary.	L6932/1988/11
Process Monitoring	L3.3.1	Condition L3.3.1 of the licence requires the Licensee to monitor the number of pigs housed in the piggery on a monthly maximum basis. This condition has been retained. The construction and operation of Pond 0 will not result in an increase in throughput therefore, no changes are required to process monitoring conditions.	

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
Ambient environmental quality monitoring	L3.4.1 and Table 3.4.1	The licence requires the Licensee to undertake monitoring of any discharge through Point D and monitoring of groundwater in bores MB3S, MB4S, MB6S, MB7S, MB8S, MB9S, MB10S and MB11S. This condition has been retained. DER has considered whether the risk profile of emissions and discharges from the premises has significantly changed since the licence was granted. No significant changes have occurred. No additional conditions are considered necessary.	L6932/1988/11
Meteorological monitoring	N/A	The licence does not have any conditions for meteorological monitoring. DER has considered whether the risk profile of emissions and discharges from the premises has significantly changed since the licence was granted. No significant changes have occurred. No new conditions are considered necessary.	L6932/1988/11
Improvements	L4.1.1 L4.1.2 Table 4.1.1	The potential for seepage from Pond 0 into the groundwater has been assessed under Fugitive emissions – seepage to groundwater detailed in Appendix A. Conditions L4.1.1 and L4.1.2 have been included to require the Licensee to construct a monitoring bore in the vicinity of Pond 0 and downstream of the direction of the groundwater flow. Baseline monitoring is to occur prior to operation of Pond 0 and is intended to provide background readings of the ambient groundwater quality. The Licensee is to provide this information to DER along with a comparison of the data with other bores on site. This will allow DER to assess the potential impacts on groundwater to determine if the current monitoring regime is sufficient. Refer to Appendix A for further details on the potential to impact on groundwater.	
Information	L5.1.1 – L5.2.1.	The Licensee is required to submit an Annual Environment Report, an Annual Audit Compliance Report and an annual Complaints Report. As the licensee has limits specified for point source emissions to water, they are required to notify the DER of any surface water discharges that exceed the limits.	L6932/1988/11
Licence Duration	N/A	Licence L6932/1988/11 will expire on 26 October 2016. This will allow the completion of construction activities associated with Pond 0 along with a re-assessment of the environmental risk of operations at the Premises following DER odour investigations. The Shire of Murray has confirmed that the duration of the planning approval for the site is indefinite. The Licensee holds an offensive trade licence for the piggery which is renewed annually in accordance with the normal offensive trade licence process.	L6932/1988/11

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
Works	L6.1.1 L6.2.1 L6.2.2 L6.2.3	The Licensee proposes to construct a second anaerobic pond which will upgrade the wastewater treatment system. The key risk associated with this proposal is the risk of contaminating the underlying groundwater with seepage of nutrient-enriched wastewater from the pond. This risk has been assessed in Appendix A - 'Fugitive emissions to groundwater including monitoring' where the risk has been assessed as moderate. Condition L6.1.1 has been included to ensure that Pond 0 is constructed according to the information, drawings and attachments accompanying the licence amendment application. Condition L6.2.1 requires the Licensee to provide a compliance document and L6.2.2 requires that the compliance document certifies that the works were constructed in accordance with the proposal documentation. L6.2.3 requires a Construction Quality Assurance to validate test certificates and that the pond will be constructed to meet the required permeability of less than 1 x 10^{-9}m/s.	Application supporting documentation

5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
26/10/2015	Amended licence advertised in West Australian newspaper	No comments received	N/A
17/12/2015	Proponent sent a notification of the intention to amend the licence to allow construction of second anaerobic pond	No comments received	NA

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

Appendix A

Fugitive emissions to groundwater including monitoring

Emission Description
Emission: Seepage of nutrient-rich wastewater from the wastewater pond system.

Impact: Nutrient rich wastewater is discharged to the wastewater treatment plant (WWTP) system where seepage can impact on the quality of the surrounding groundwater resource. Groundwater across the site varies. According to the C M Farm's Annual Environmental Reports, bores in the vicinity of the ponds can vary with levels from 0.6m top of casing (TOC) to 2.7m TOC. The groundwater quality in the vicinity of the piggery also varies across the site, where bore readings are influenced according to the vicinity of the bore to the WWTP system.

Information on the standing water level has been provided from a bore in the vicinity of the proposed Pond 0. Monitoring of this bore shows the groundwater level from the floor of the proposed pit to the top of the groundwater is 9m. Following final contouring, this will allow the pond to have an operating depth of 5m and a minimum depth to groundwater of 4m, measured from the base of the pond.

Controls:
Derby Industries propose to construct Pond 0 with a 1mm HDPE liner. The Company installing the liner will provide a guarantee on all aspects of the lining material and installation including welded joints and vacuum testing of joint integrity. Pond 0 and Pond 1 will operate in tandem which will allow the resting pond to be de-sludged to maintain operational efficiency and capacity.

Risk Assessment
Consequence: Moderate
Likelihood: Possible
Risk Rating: Moderate

Regulatory Controls
Conditions L1.2.1 to L1.2.8 have been retained in the licence and updated to include Pond 0 where required. These conditions detail how wastewater must be treated and contained on site to minimise the potential risk of fugitive emissions to groundwater.

Improvement conditions L4.1.1 and L4.1.2 of the amended licence require the Licensee to construct a monitoring bore downstream of the groundwater flow from Pond 0 and provide background measurements from the bore. A report of these measurements is to be provided prior to operation of Pond 0 and the results can be used as a comparison against future monitoring results to assist in determining whether there is any seepage from Pond 0.

This amendment is to allow Derby Industries to construct a second anaerobic pond which will upgrade the current wastewater treatment system. The Department notes that further groundwater investigation into nutrients and standing water levels may be required to determine whether the wastewater treatment system is impacting on the underlying groundwater. This will be considered as part of the upcoming licence review to be completed prior to the expiry of the current licence on 26 October 2016.

Residual Risk
Consequence: Moderate
Likelihood: Possible
Risk Rating: Moderate

Attachment 1

The Premises is shown in the map below and excludes areas cross hatched in yellow. The pink line defines the Premises boundary.