



Government of **Western Australia**
Department of **Environment and Conservation**

Your ref:
Our ref: L8607/2011/1
Enquiries: Daniel Hartnup
Phone: 9725 4300
Fax: 9725 4351
Email: Daniel.Hartnup@dec.wa.gov.au

Mr Geoff Pearson
Pearson Nominees Pty Ltd
43 Ditchingham Place
AUSTRALIND WA 6233

Dear Mr Pearson

ENVIRONMENTAL PROTECTION ACT 1986: LICENCE GRANTED

Premises

Lake Preston Cattle Feedlot
Lot 17 on Plan 20936
Licence Number: L8607/2011/1

A licence under the *Environmental Protection act 1986* (the Act) has been granted for the above premises. The Department of Environment and Conservation 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 Daniel Hartnup in the Bunbury office on 9725 4300.

Yours sincerely

Carissa Aitken
Officer delegated under Section 20
of the *Environmental Protection Act 1986*

Thursday, 14 June 2012

enc: *Environmental Protection Act 1986* Licence 8607/2011/1

DIRECTOR GENERAL AND ENVIRONMENTAL SERVICES DIVISIONS: The Atrium, 168 St Georges Terrace, Perth, Western Australia 6000

Phone: (08) 6467 5000 Fax: (08) 6467 5562

PARKS AND CONSERVATION SERVICES DIVISIONS: Executive: Corner of Australia II Drive and Hackett Drive, Crawley, Western Australia 6009

Phone: (08) 9442 0300 Fax: (08) 9386 1578 Operations: 17 Dick Perry Avenue, Technology Park, Kensington, Western Australia 6151

Phone: (08) 9219 8000 Fax: (08) 9334 0498

POSTAL ADDRESS FOR ALL DIVISIONS: Locked Bag 104, Bentley Delivery Centre, Western Australia 6983

www.dec.wa.gov.au

wa.gov.au



LICENCE FOR PRESCRIBED PREMISES *Environmental Protection Act 1986*

LICENCE NUMBER: L8607/2011/1

FILE NUMBER: 2011/009531

LICENSEE

Pearson Nominees Pty Ltd
43 Ditchingham Place
AUSTRALIND WA 6233

ACN: 008 773 144

PREMISES

Lake Preston Cattle Feedlot
Lot 17 on Plan 20936
Old Coast Road
MYALUP WA 6220
(as depicted in Attachment 1)

PRESCRIBED PREMISES CATEGORY

Schedule 1 of the Environmental Protection Regulations 1987

CATEGORY NUMBER	CATEGORY DESCRIPTION	CATEGORY PRODUCTION OR DESIGN CAPACITY	PREMISES PRODUCTION OR DESIGN CAPACITY
1	Cattle feedlot: premises on which the watering and feeding of cattle occurs, being premises – (a) situated less than 100 metres from a watercourse; and (b) on which the number of cattle per hectare exceeds 50.	500 animals or more	6 500 animals

CONDITIONS OF LICENCE

Subject to the conditions of licence set out in the attached pages.

Carissa Aitken

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

ISSUE DATE: Thursday, 14 June 2012
COMMENCEMENT DATE: Thursday, 14 June 2012
EXPIRY DATE: Tuesday, 13 June 2017

CONDITIONS OF LICENCE

Environmental Protection Act 1986

LICENCE NUMBER: L8607/2011/1

FILE NUMBER: 2011/009531

DEFINITIONS

In these conditions of works approval, unless inconsistent with the text or subject matter:

"Director" means Director, Environmental Regulation Division of the Department of Environment and Conservation for and on behalf of the Chief Executive Officer as delegated under Section 20 of the *Environmental Protection Act 1986*;

"Director" or "Department of Environment and Conservation" for the purpose of correspondence means:

Regional Manager – South West Region
Department of Environment and Conservation
P.O. Box 1693 Telephone: 9725 4300
BUNBURY WA 6231 Facsimile: 9725 4351
Email: SouthWestRegion.IndustryRegulation@dec.wa.gov.au;

"licensee" means Pearson Nominees Pty Ltd (ACN: 008 773 144); and

"premises" means Lot 17 on Plan 20936, Old Coast Road, Myalup as depicted by the red line in Attachment 1.

GENERAL CONDITIONS

CONSTRUCTION OF SEDIMENTATION BASIN

- 1 The licensee shall, by 29 June 2012, construct the sedimentation pond in accordance with the document entitled "Quality Assurance Manual, TW Pearson & Son, Lake Preston Feedlot", dated 27/11/2007.
- 2 The licensee shall, by 13 July 2012, provide a report certifying the sedimentation pond has been constructed in accordance with condition 1.

CATTLE NUMBERS

- 3 The licensee shall ensure the head of cattle held within the domestic pens (depicted by the yellow line in Attachment 1) does not exceed 1,500 at any one time.

EMISSIONS TO AIR

ODOUR

- 4 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.

DISCHARGES TO WATER

WASTEWATER MANAGEMENT SYSTEM

- 5 The licensee shall direct all uncontaminated stormwater away from intensive stock holding areas.

ISSUE DATE Thursday, 14 June 2012
COMMENCEMENT DATE: Thursday, 14 June 2012
EXPIRY DATE: Tuesday, 13 June 2017

CONDITIONS OF LICENCE

Environmental Protection Act 1986

LICENCE NUMBER: L8607/2011/1

FILE NUMBER: 2011/009531

- 6 The licensee shall direct all surface water runoff from the feedlot, including stormwater runoff, cleaning water and water from the cattle drinking troughs, to the sedimentation pond.
- 7 The licensee shall manage the sedimentation pond in a manner such that:
- (i) stormwater runoff resulting from site drainage shall be prevented from entering the pond or causing the erosion of outer pond embankment;
 - (ii) overtopping does not occur; and
 - (iii) a minimum of three-hundred (300) mm freeboard is maintained.

SOLID / LIQUID WASTES

SOLID WASTE APPLICATION TO LAND

- 8 The licensee shall ensure the application of manure or sedimentation pond sludge to land does not exceed twenty (20) tonnes per hectare.
- 9 The licensee shall ensure the application of manure or sedimentation pond sludge to land is not disposed of within one-hundred (100) metres of a watercourse.

DECEASED ANIMALS

- 10 The licensee shall ensure burial pits for on-site carcass disposal are constructed such that the bottom of the pit is a minimum of fifteen-hundred (1,500) millimetres above the seasonal high water table.

REPORTING CONDITIONS

ANNUAL ENVIRONMENTAL REPORT

- 11 The licensee shall provide to the Director by 1 September each year, an Annual Environmental Report containing data collected during the period beginning 1 July the previous year and ending on 30 June in that year. The report shall contain, but not be limited to:
- (i) monthly records of the number of head of animals held on the premises;
 - (ii) monthly records of the number of deceased animals buried on the premises, including information to demonstrate the seasonal high water table;
 - (iii) the area on the premises on which manure has been spread;
 - (iv) the number and type of complaints received, including the nature of the complaint (cross referenced with prevailing wind directions), and action(s) taken; and
 - (v) any changes to site boundaries, surface drainage channels and on-site or off-site impacts or pollution.

ANNUAL AUDIT COMPLIANCE REPORT

- 12 The licensee shall by 1 September in each year, provide to the Director an Annual Audit Compliance Report in the form in Attachment 2 to this licence, signed and certified in the manner required by Section C of the form, indicating the extent to which the licensee has complied with the conditions of this licence, and any previous licence issued under Part V of the Act for the Premises, during the period beginning 1 July the previous year and ending on 30 June in that year.

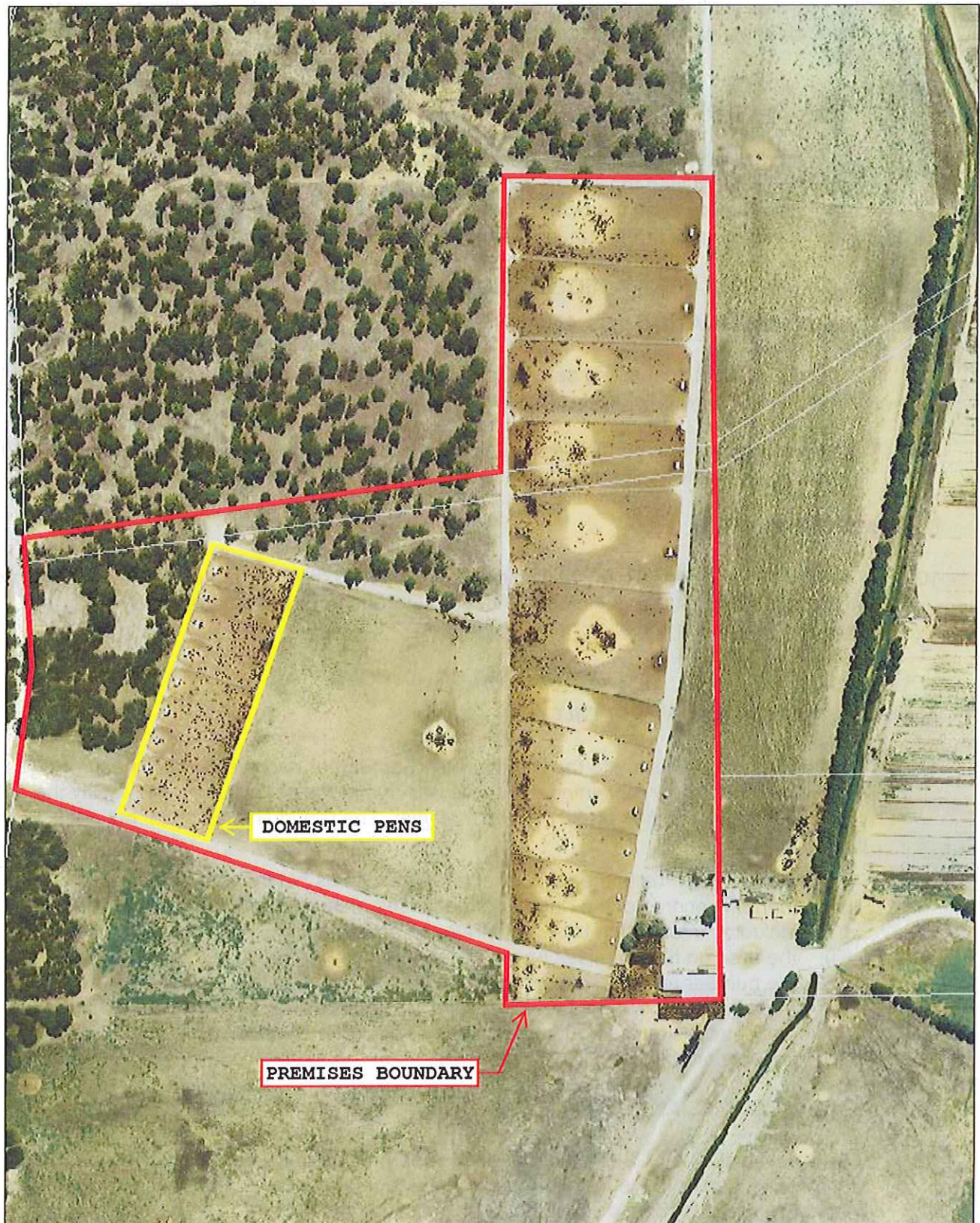
ISSUE DATE	Thursday, 14 June 2012
COMMENCEMENT DATE:	Thursday, 14 June 2012
EXPIRY DATE:	Tuesday, 13 June 2017

ATTACHMENT 1

LICENCE NUMBER: L8607/2011/1

FILE NUMBER: 2011/009531

PLAN OF PREMISES



ISSUE DATE
COMMENCEMENT DATE:
EXPIRY DATE:

Thursday, 14 June 2012
Thursday, 14 June 2012
Tuesday, 13 June 2017

ATTACHMENT 2

LICENCE NUMBER: L8607/2011/1

FILE NUMBER: 2011/009531

ANNUAL AUDIT COMPLIANCE REPORT

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 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 initialed by the person(s) who signs Section C of this annual audit compliance report

INITIAL: _____

ISSUE DATE Thursday, 14 June 2012
COMMENCEMENT DATE: Thursday, 14 June 2012
EXPIRY DATE: Tuesday, 13 June 2017

ATTACHMENT 2**LICENCE NUMBER:** L8607/2011/1**FILE NUMBER:** 2011/009531**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 DEC?	
<input type="checkbox"/> Yes <input type="checkbox"/> Reported to DEC verbally Date _____ <input type="checkbox"/> Reported to DEC in writing Date _____	<input type="checkbox"/> No
d) Has DEC taken, or finalised any action in relation to the non compliance?	
e) Summary of particulars of 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 initialed by the person(s) who signs Section C of this annual audit compliance report

INITIAL: _____

ISSUE DATE Thursday, 14 June 2012
COMMENCEMENT DATE: Thursday, 14 June 2012
EXPIRY DATE: Tuesday, 13 June 2017

ATTACHMENT 2**LICENCE NUMBER:** L8607/2011/1**FILE NUMBER:** 2011/009531**SECTION C - SIGNATURE AND CERTIFICATION**

This Annual Audit Compliance Report may only be signed by a person(s) with legal authority to sign it. The ways in which the Annual Audit Compliance Report 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 Annual Audit Compliance Report 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 and Conservation 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 and Conservation.
A corporation	<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 and Conservation.
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 and Conservation.
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)

ISSUE DATE

Thursday, 14 June 2012

COMMENCEMENT DATE:

Thursday, 14 June 2012

EXPIRY DATE:

Tuesday, 13 June 2017



LICENCE NUMBER: L8607/2011/1
LICENCE FILE NUMBER: 2011/009531
APPLICATION DATE: 11 October 2011

PREMISES DETAILS

LICENSEE AND OCCUPIER

Pearson Nominees Pty Ltd
43 Ditchingham Place
AUSTRALIND WA 6233

ACN: 008 773 144

PREMISES

Lake Preston Cattle Feedlot
Lot 17 on Plan 20936
Old Coast Road
MYALUP WA 6220

PRESCRIBED PREMISES SUMMARY

Table 1: Prescribed Premises Summary.

Category number*	Category Description*	Category Production or Design Capacity*	Premises Production or Design Capacity#	Premises Fee Component**
1	Cattle feedlot: premises on which the watering and feeding of cattle occurs, being premises – (a) situated less than 100 metres from a watercourse; and (b) on which the number of cattle per hectare exceeds 50.	500 animals or more	6 500 animals	More than 5 000 animals

* From Schedule 1 of the Environmental Protection Regulations 1987

From application

** From Schedule 4 of the Environmental Protection Regulations 1987

This Environmental Assessment Report (EAR) has been drafted for the purposes of detailing information on the management and mitigation of emissions and discharges from the prescribed premises. The objective of the EAR is to provide a risk assessment of emissions and discharges, and information on the management of other activities occurring onsite which are not related to the control of emissions and discharges from the prescribed premises activity. This does not restrict the Department of Environment and Conservation (DEC) to assessing only those emissions and discharges generated from the activities that cause the premises to become prescribed premises.



Basis of Assessment

This proposal relates to an existing "prescribed premises", the Lake Preston Cattle Feedlot (W4307/2007/1), which has been assessed under category 1 (Cattle feedlot), within Schedule 1 of the Environmental Protection Regulations 1987 (EP Regs). In accordance with section 56 of the *Environmental Protection Act 1986* (EP Act), the premise requires a licence to permit the discharge of waste to the environment.

Category 1 is applicable to premises on which the watering and feeding of cattle occurs, being premises – (a) situated less than 100 metres from a watercourse; and (b) on which the number of cattle per hectare exceeds 50:

Pearson Nominees feed and condition cattle on a custom basis for both the local and export markets. The feedlot pens are located adjacent to a major drain which flows into a Ramsar wetland. The feedlot has a combined design capacity of 6,500 animals, which equates to approximately 800 head per hectare.

1. BACKGROUND

1.1 GENERAL COMPANY DESCRIPTION

Pearson Nominees Pty Ltd ("Pearson") is a family partnership that operates two custom cattle feedlots in Myalup and Badgingarra, Western Australia.

The family has operated in Myalup for approximately 20 years. Together with the feed-lotting operations, which are both intensive and non-intensive, Pearson also operates a large grazing and irrigated horticulture enterprise, and a farm produce business.

1.2 LOCATION OF PREMISES

The premises is located north-west of Myalup, approximately 130 km south of Perth. Lake Preston, which is one of 65 wetlands in Australia recognised on the Ramsar List of Wetlands of International Importance, is located approximately 1.2 kilometres (km) west of the premises. Lake Preston also forms part of the Yalgorup National Park, which also lies to the north of the site.

The premises is located within the Myalup/Lake Preston horticultural precinct, where the family lease approximately 20 hectares for the production of vegetables. Historically, the property was irrigated using centre pivot systems for the production of lucerne and pasture for cattle fodder; however the pivot system is no longer in use. The property is also subject to mining leases for limestone and other extractive industry. Groundwater is extracted from a number of bores and surface excavations, which draw from the Superficial Formation.

1.2.1 Geology and hydrogeology

The premises is located on the Spearwood Dune System, which is one of the dunal landform regions in proximity to the ocean on the Swan Coastal Plain. This landform consists of yellowish brown siliceous sands overlying limestone at various depths, is hilly and elevated, and is often separated from other dune systems by a series of lakes and swamps. It encompasses flat to gently undulating terrain overlying marine limestone associated with coastal lakes, such as the adjacent Lake Preston.

The agricultural potential of the Spearwood sands is moderate, but relies on large quantities of groundwater and fertiliser input. As a result, nitrogen, phosphorus, potassium and sulphur are



leached from fertilised pastures both vertically and laterally into natural and man-made drains, contributing to eutrophication of the many waterbodies in the area. The soils have good phosphorus retention capability (poor nitrogen retention), and are regarded as the most productive of the sandy soils on the Swan Coastal Plain.

The soils on the premises comprise shallow to moderately deep yellow-brown and grey-brown sands with minor limestone outcrops. The watertable is very close to the surface, and seasonal waterlogging occurs during winter (typically June to mid-August). Topographical contours of the area indicate the feedlot pens are situated approximately 5 mAHD, with a shallow DoW groundwater bore (located 1.5 km east of the premises) indicating the watertable fluctuates between 1.5 – 2 mAHD (i.e. 3-3.5 metres below ground level).

The premises is located within an artificial drainage network known as the Harvey Diversion sub-catchment, within the greater Peel-Harvey Catchment. Much of the natural drainage flow, of what was the Harvey River, is now diverted to the ocean at Myalup via a diversion drain.

The farming area surrounding the premises contains several multiple use wetlands, and is intersected by a major man-made drain, which empties into Lake Preston. This is of concern to DoW, as the water quality within the drain exiting the southern end of the premises contains high nitrogen content being discharged into Lake Preston.

There are two on-site groundwater bores and two excavations into the water table, in which groundwater is extracted for intensive stock watering and horticulture. Excavation 1 receives groundwater flow through from the east and is considered to be representative of background levels; however Excavation 2 contains higher salinity, chloride, nitrogen and phosphorus, which is likely to reflect groundwater contamination from cattle access. The water quality in both bores is considered to contain acceptable water quality to DoW; however there are concerns over nutrient leaching to groundwater.

1.2.2 Community and sensitive receptors

The premises is well buffered to residential receptors, with the closest, being a single, rural residence, located approximately 1.6 km south of the feedlot. There are 3 other single residences within a 5 km radius of the feedlot.

The minimum separation distance is 1.2 km, in accordance with the National Code of Practice for Beef Cattle Feedlots (the "National Code"). This is based on a 6,000 head feedlot and is a conservative figure, given the majority of odour issues from cattle feedlots are attributed to high stocking rates during the wetter months.

1.3 PROCESS DESCRIPTION

The premises contains infrastructure for two independent feedlots (Figure 1), with one being accredited under the National Feedlot Accreditation Scheme (NFAS) for the domestic market (design capacity 1,500 head, nominal capacity 1,000 head); and the other accredited under the Australian Quarantine and Inspection Service (AQIS) international standards for the export market (paddock style pens, design capacity 5,000 head).

AQIS pens

The AQIS paddock-style feedlot has been operated by the family since the mid-1990s. It contains 6 pens measuring 2,100 m² and 6 pens measuring 5,500 m². The pen setup is basic, comprising electric wire fences and mobile feeder bins. This feedlot is only used between November and March



each year. It essentially operates as a short-term holding facility, with cattle continuously moved in and out of the feedlot, staying on feed between 4 and 14 days. Approximately 25,000 animals are agisted every year, before being shipped up north for the export market.

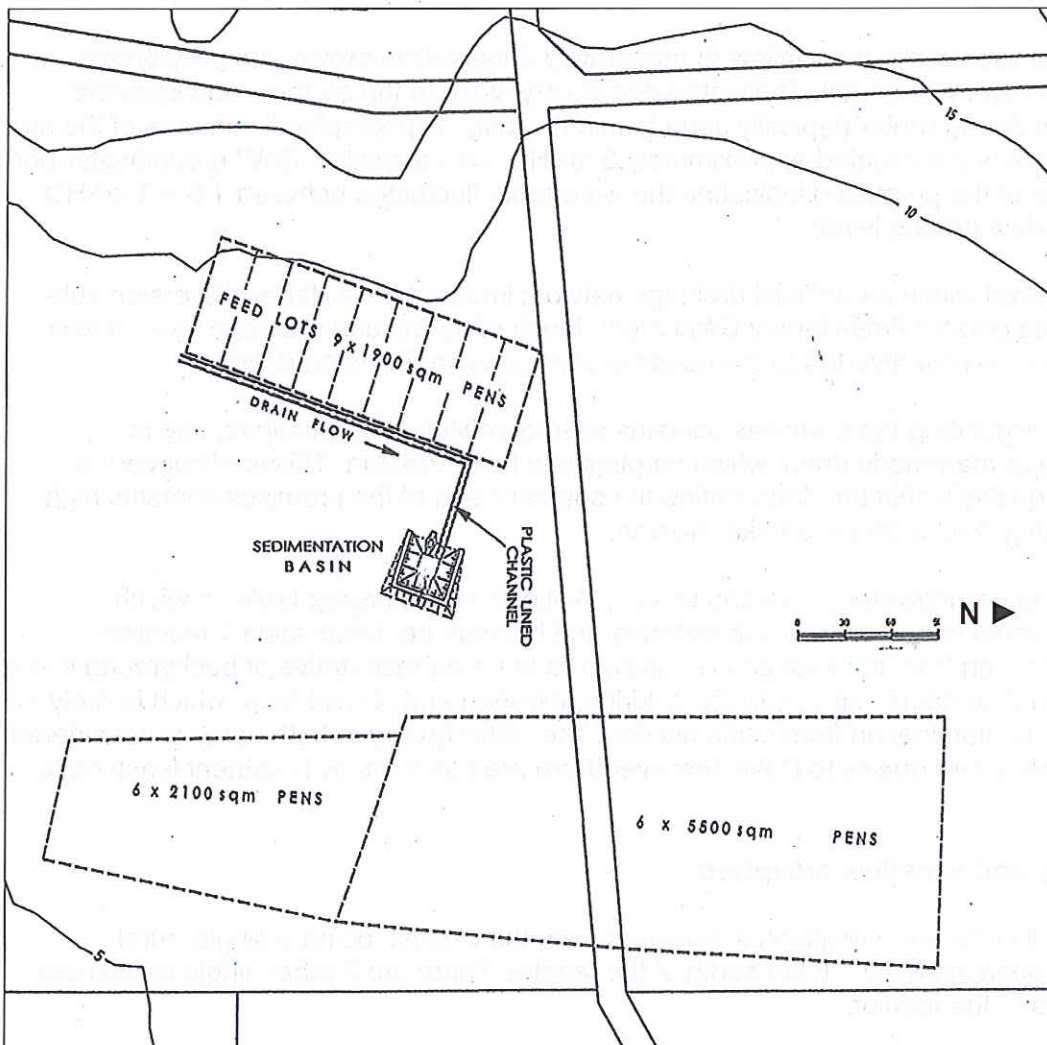


Figure 1: Layout and pen design of the Lake Preston Cattle Feedlot.

The pen floors in this feedlot are not sealed or compacted, as they are seeded and cultivated after the feeding season. The manure in each pen is not removed, as it assists as fertiliser. There is little to no stormwater management in these pens, which often results in the pooling of water during the wetter months.

NFAS pens

The domestic feedlot pens were constructed in 2007 under works approval 4307. The pens were constructed with a 5% slope, of compacted limestone (300mm). There are a total of 9 pens, each measuring 1,900 m². Each pen contains a concrete feed apron and 500 L concrete water troughs. A runoff collection drain at the footslope is designed to capture pen floor runoff along the low end of the pens. The originally approved design included a sedimentation pond to capture this runoff; however this feature has not been constructed. DEC will require a sedimentation pond to be constructed as part of the licensing conditions for the premises.



This feedlot, which has been operating without a licence for approximately 2 years, is stocked between September and May every year. Approximately 1,000 head are kept on feed for 400 days, and sold to the domestic market as Wagyu beef. In addition, this feedlot is independently audited each year under NFAS to ensure compliance with, in amongst other things, the National Beef Cattle Environmental Code of Practice.

1.4 REGULATORY CONTEXT

1.4.1 Part IV *Environmental Protection Act 1986*, Environmental Impact Assessment

In 2007, the Environmental Protection Agency (EPA) advised the Harvey Shire Council that DEC's assessment under Part V of the EP Act would indicate to Council if impacts of the proposal were significant to warrant a separate referral. As a result, the proposal was not referred and has been managed under Part V of the EP Act.

1.4.2 Part V *Environmental Protection Act 1986*, Environmental Management

Cattle feedlots are listed under Schedule 1 of the Environmental Protection Regulations 1987; therefore construction of a new premises, new pens or additional activities that will alter the volume of waste existing the premises, require a works approval and/or licence amendment under Part V, Section 54 of the EP Act.

The NFAS pens at this feedlot were constructed under works approval 4307 in 2007; however DEC understands that it has been operating without a licence since 2009. This was first identified during a compliance inspection on 21 March 2011, as W4307 had expired in May 2010. The inspection also identified that specific features of the feedlot had not been constructed, as per the 2007 works approval (i.e. no sedimentation pond).

The compliance document for W4307 was received by DEC on 31 March 2011, advising the sedimentation pond has not been constructed due to the feedlot being empty during the winter months and the pens being cleaned prior to the onset of winter rains, such that any stormwater runoff is directed from the pens onto an adjacent paddock.

The issue of operating the feedlot without a licence, and not completing the feedlot in accordance with the original works approval, are enforcement matters and will be dealt with by DEC independently of this application.

Guidelines / Codes of Practice relevant to the premises:

- National Beef Cattle Feedlot Environmental Code of Practice, 2nd Edn (CSIRO, 2002);
- National Guidelines for Beef Cattle Feedlots in Australia, 3rd Edn (Meat and Livestock Australia, 2011) (National Feedlot Guidelines);
- Guidelines for the Establishment and Operation of Cattle Feedlots in South Australia, 2nd Edn (EPA SA, DPIR SA, February 2006) (South Australian Feedlot Guidelines);
- Guidelines for the Environmental Management of Beef Cattle Feedlots in Western Australia (DEP, DoAg, WRC, DoH, July 2002) (WA Feedlot Guidelines);
- EPA Guidance Statement No.3 – Separation distances between Industrial and Sensitive Land Uses, Draft Guidance No.3 (EPA, 2005).

Other regulations relevant to the premises:

- *Environmental Protection Act 1986* (the Act);
- Environmental Protection Regulations 1987;
- Environmental Protection (Clearing of Native Vegetation) Regulations 2004;
- Environmental Protection (Controlled Waste) Regulations 2004;



- Environmental Protection (Noise) Regulations 1997;
- Environmental Protection (Unauthorised Discharges) Regulations 2004;
- *Contaminated Sites Act 2003*; and
- Contaminated Sites Regulations 2006.

1.4.3 Other DMA's Legislation which applies (e.g. DMP, Department of Agriculture, DoH, DPI etc)

Australian Lot Feeder's Association

NFAS is an industry self-regulatory quality assurance scheme owned by the Australian Lot Feeder's Association. NFAS accreditation is mandatory for feedlots producing grain-fed beef for export markets. To be accredited, feedlots must have procedures which meet the requirements of industry standards (i.e. animal welfare, environment, food safety, etc), and maintain records to demonstrate the procedures have been adhered to for all cattle prepared at the feedlot. The procedures, records and facilities are independently audited on an annual basis. Pearson holds NFAS accreditation for the 1,000 head feedlot on the premises, which was last audited in November 2010.

National Pollutant Inventory

Cattle feedlots that manage an average of 143 Standard Cattle Units (SCU) or more over a reporting year are required to report emissions to the National Pollution Inventory (NPI). Reportable emissions include NH_3 release to the atmosphere from the decomposition of cattle manure, with 143 SCU equating to approximately 10 tonne per annum of NH_3 .

1.4.4 *Rights in Water and Irrigation Act 1914* (RIWI Act)

Groundwater from the Perth-Superficial aquifer is abstracted under Licence to Take Water GWL101642(4), administered by the Department of Water (DoW) under the RIWI Act. The annual water entitlement covered by this licence is 360,000 kL, for the purpose of intensive stock watering and horticulture. This licence requires water quality monitoring and annual reporting.

1.4.5 Local Government Authority

The premise is located in the Shire of Harvey, who issued planning consent under the Shire of Harvey - District Planning Scheme No.1 on 19 April 2007 for the development of a cattle feedlot on the premises. The consent included setting a maximum capacity of 5,000 head and an annual audit of compliance against the planning conditions.

In addition, the Shire has delegated powers under the *Health Act 1911* regarding carcass disposal, fly control and nuisance odour.



2.0 STAKEHOLDER AND COMMUNITY CONSULTATION

SUBMISSIONS RECEIVED DURING 21 DAY PUBLIC COMMENT PERIOD

The application for licence details was advertised in the *West Australian* newspaper on Monday, 21 November 2011, as a means of advising stakeholders and to seek public comments. No public submissions were received in response to this round of advertising.

A submission from DoW indicates the depth to groundwater in this location is likely to be close to the surface and therefore the potential risk of contamination of groundwater resources is high. Of particular concern is the potential for runoff of untreated surface water to the internal drainage network, which increases the risk to Lake Preston (part of the Peel-Yalgorup Ramsar wetland system).

3.0 EMISSIONS AND DISCHARGES RISK ASSESSMENT

DEC considers that conditions should focus on regulating emissions and discharges of significance. Where appropriate, emissions and discharges which are not significant should be managed and regulated by other legislative tools or management mechanisms.

The following section assesses the environmental risk of potential emissions from the premises. In order to determine the site's appropriate environmental regulation, an emissions and discharges risk assessment was conducted of the premises using the environmental risk matrix outlined in Appendix B. The results of this are summarised in Table 2.



ENVIRONMENTAL ASSESSMENT REPORT

Table 2: Risk assessment and regulatory response summary table.

Risk factor	Significance of emissions	Socio-Political Context of Each Regulated Emission	Risk Assessment	DEC Regulation (EP Act - Part V)	Other management (legislation, tools, agencies)
Air emissions (point source)	1. No emissions expected. NH ₃ emissions reported to NPI on an annual basis.	Low.	E.	No regulation through licence.	General provisions of the <i>Environmental Protection Act 1986</i>
Dust emissions	1. Not expected to be significant due to the location of the premises.	Low.	E.	No regulation through licence.	General provisions of the <i>Environmental Protection Act 1986</i>
Odour emissions	1. Not expected to be significant from normal operations due to the location of the premises.	Low. No complaints recorded since the feedlot's inception in the early 1990s.	E.	LIC – standard odour condition to protect persons not on the premises during exceptional circumstances. Restriction of 1,500 animals at any one time.	General provisions of the <i>Environmental Protection Act 1986</i>
Noise emissions	1. Not expected to be significant from normal operations due to the location of the premises.	Low.	E.	No regulation through licence - other management mechanisms.	EP (Noise) Regs General provisions of the <i>Environmental Protection Act 1986</i>
Light emissions	1. No emissions expected.	Low.	E.	No regulation through licence.	General provisions of the <i>Environmental Protection Act 1986</i>
Discharges to water	1. No direct discharges to water authorised. 5. Uncontrolled discharge of contaminated stormwater from feedlot runoff has the potential to impact on groundwater and surface water systems.	Medium. Concerns raised by DoW regarding the potential for contamination of groundwater and surface water from runoff into the adjacent drainage system which eventually discharges to Lake Preston.	A.	LIC – Do Not Allow (fix). See Appendix A, Section 1.1.	EP (Unauthorised Discharges) Regulations 2004 General provisions of the <i>Environmental Protection Act 1986</i>



ENVIRONMENTAL ASSESSMENT REPORT

Risk factor	Significance of emissions	Socio-Political Context of Each Regulated Emission	Risk Assessment	DEC Regulation (EP Act - Part V)	Other management (legislation, tools, agencies)
Discharges to land	1. No discharges expected.	Low.	E.	No regulation through licence - other management mechanisms.	EP (Unauthorised Discharges) Regulations 2004
Solid / liquid wastes	1. Land application of manure over 1,200ha of pasture is consistent with the National Guidelines for Beef Cattle Feedlots and is a common, modern-day agricultural practice; however runoff can pose unacceptable risks to groundwater and surface water quality if not managed appropriately.	Medium/High. Concerns raised by DoW regarding the potential for surface water runoff into the adjacent drainage system which eventually discharges to Lake Preston.	D.	LIC – conditions requiring a maximum application rate of 20 tonnes of manure per hectare; and that no manure is authorised to be disposed within 100m of a watercourse. Deceased animals to be disposed with protection buffer to groundwater. This information to be presented annually to DEC.	EP (Unauthorised Discharges) Regulations 2004 EP (Controlled Waste) Regulations 2004
Hydrocarbon/chemical storage	1. Not expected to be significant.	Low.	E.	No regulation through licence.	Dangerous Goods storage licence and relevant legislation (DMP)
Contaminated site identification	1. Site has not been reported to DEC as a known or suspected contaminated site.	Low.	E.	No regulation through licence.	Management through <i>Contaminated Sites Act 2003</i> and Contaminated Sites Branch (DEC).



4.0 GENERAL SUMMARY AND COMMENTS

This licence is issued to Pearson Nominees Pty Ltd for their cattle feedlot operation located in Myalup. The feedlot is an existing operation which was expanded in 2007 under works approval 4307.

Due to the location of the feedlot, the disposal of animal wastes raises concerns in relation to nutrients and micro-organisms entering the soil, groundwater and water courses, including rural drains, through runoff, which may impact water quality in the Peel-Yalgorup Ramsar wetland system. Licence conditions are therefore required to ensure the impacts of discharges are minimised and managed in accordance with best practice, and any other requirement deemed necessary by DEC. Additional standard conditions are required to ensure that information is communicated to DEC.

The premises have been classified as "Low priority" in accordance with DEC's licensing priority management framework; however the licence will be reissued for one year to enable a review of the performance of the required sedimentation basin and wastewater treatment system. The premises is also subject to the general provisions of the *Environmental Protection Act 1986* relating to causing and reporting pollution, and the provisions of the Environmental Protection (Unauthorised Discharges) Regulations 2004.



APPENDIX A: EMISSIONS AND DISCHARGES OF SIGNIFICANCE

1.1 DISCHARGES TO WATER

Authorised discharges to water

There are no authorised discharges to water from normal operations at the premises.

Uncontrolled discharges to water

Runoff from the feedlot pad entrains organic and mineralised manure constituents that would pose a significant ecological hazard if they were released, uncontrolled, into the environment. A central concept applied in feedlot hydrology is that the feedlot, and any associated infrastructure from which runoff might pose a pollution hazard, is to be located in a controlled catchment which does not allow uncontrolled runoff to enter the environment under normal circumstances.

The premise is located on the Spearwood Dunes landform, which comprises shallow sands with minor limestone outcrops. Depth to groundwater is shallow; results of monitoring on-premises bores indicate the leaching of nutrients, and water quality within the drain which runs through the property and discharges into Lake Preston is showing poor quality, with high nitrogen content.

The originally approved feedlot design for the premises included a sedimentation pond to capture stormwater runoff from the pens and screen/settle out the entrained solids, prior to evaporation. This feature has not been constructed, and the feedlot has been operated for nearly 2 years without any system in place to contain runoff from the pad. Pearson has advised the feedlot is de-stocked over the winter months, as the temperature and rainfall at the location during winter is non-conducive to optimum performance and health. As such, the pens are scraped clean prior to the onset of winter rains, thereby negating the need for a sedimentation pond.

Advice from the Department of Agriculture and Food WA (DAFWA) is that in accordance with the National Code, a sedimentation system and/or holding pond are required design elements of a feedlot; however it is also acceptable where an enterprise can demonstrate that through alternative means, the outcome and performance measures (i.e. all runoff to be contained), are capable of being met. In this case, the notion of not feeding during winter is not sufficient evidence that alternative means are adequate, especially considering approximately 50% of rainfall in the Lake Clifton area falls outside of the winter months, meaning there is a high risk that runoff from the feedlot reaches the external environment.

DISCHARGES TO WATER RISK ASSESSMENT

The risk of discharges to water has been determined in accordance with the criteria set out in Appendix B of this report.

The measure of significance of discharges to water was determined to be 5, based on:

- the existing evidence of nutrient leaching into groundwater and poor water quality in the agricultural drain which discharges into a RAMSAR wetland;
- the lack of a sedimentation pond to capture potentially contaminated runoff from the pen floor outside of the winter months; and
- the design of the feedlot being inconsistent with the National Code.



The socio-political context was determined to be Medium, based on advice provided by DoW that indicates the feedlot is impacting on groundwater and surface water quality. The resulting measure of emissions risk is A and the resulting regulatory action is 'Do Not Allow' (fix).

RECOMMENDED STRATEGY FOR MANAGING DISCHARGES TO WATER

The issue of discharges to water is suitable for management by licence conditions, to ensure any impacts to groundwater and surface water are appropriately managed.

Conditions are therefore required to ensure:

1. the sedimentation pond is constructed, as per the originally approved design;
2. documentation is submitted to DEC to demonstrate the pond has been constructed as per the originally approved design;
3. that all runoff from the pens is directed to the sedimentation pond; and
4. the pond is operated and managed such that stormwater is prevented from entering the pond, overtopping does not occur, and a minimum freeboard of 300mm is maintained at all times.



APPENDIX B: EMISSIONS AND DISCHARGES RISK ASSESSMENT MATRIX

Table 4: Measures of Significance of Emissions

Emissions as a percentage of the relevant emission or ambient standard		Worst Case Operating Conditions (95 th Percentile)			
		>100%	50 – 100%	20 – 50%	<20%*
Normal Operating Conditions (50 th Percentile)	>100%	5	N/A	N/A	N/A
	50 – 100%	4	3	N/A	N/A
	20 – 50%	4	3	2	N/A
	<20%*	3	3	2	1

*For reliable technology, this figure could increase to 30%

Table 5: Socio-Political Context of Each Regulated Emission

		Relative proximity of the interested party with regards to the emission				
		Immediately Adjacent	Adjacent	Nearby	Distant	Isolated
Level of Community Interest or Concern*	5	High	High	Medium High	Medium	Low
	4	High	High	Medium High	Medium	Low
	3	Medium High	Medium High	Medium	Low	No
	2	Low	Low	Low	Low	No
	1	No	No	No	No	No

Note: These examples are not exclusive and professional judgement is needed to evaluate each specific case

*This is determined by the DEC using the DEC "Officer's Guide to Emissions and Discharges Risk Assessment" May 2006.

Table 6: Emissions Risk Reduction Matrix

		Significance of Emissions				
		5	4	3	2	1
Socio-Political Context	High	A	A	B	C	D
	Medium High	A	A	B	C	D
	Medium	A	B	B	D	E
	Low	A	B	C	D	E
	No	B	C	D	E	E

PRIORITY MATRIX ACTION DESCRIPTORS

A = Do not allow (fix)

B = licence condition (setting limits + EMPs - short timeframes)(setting targets optional)

C = licence condition (setting targets + EMPs - longer timeframes)

D= EIPs, other management mechanisms/licence conditions (monitoring/reporting)/other regulatory tools

E = No regulation, other management mechanisms

Note: The above matrix is taken from the DEC Officer's Guide to Emissions and Discharges Risk Assessment May 2006.