Government of Western Australia
Department of Environment and Conservation

LICENCE FOR PRESCRIBED PREMISES
Environmental Protection Act 1986

LICENCE NUMBER: L8473/2010/1 **FILE NUMBER** 2010/006561

LICENSEE AND OCCUPIER OF PREMISES
Paradise Beef Pty Ltd
3115 Silipo Road
DONNYBROOK WA 6239

ACN: 137 869 259

NAME AND LOCATION OF PREMISES
Paradise Beef Cattle Feedlot
Lot 2413 on Plan 131325, Lot 2651 on Plan 136569 and Lot 5135 on Plan 213112
Silipo Road
PAYNEDALE WA 6239

PRESCRIBED PREMISES CATEGORY
Schedule 1 of the Environmental Protection Regulations 1987

CATEGORY	DESCRIPTION	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.	1400 animals

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

Date signed: 20 November 2015

Jonathan Bailes
Manager Licensing (Process Industries)
Officer delegated under Section 20
of the *Environmental Protection Act 1986*

Friday, 20 November 2015

ISSUE DATE Thursday, 18 November 2010
COMMENCEMENT DATE: Monday, 22 November 2010
EXPIRY DATE: Monday, 21 November 2016
DATE OF AMENDMENT: Friday, 20 November 2015

DEFINITIONS

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

'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

"**Irrigation Management Plan**" means the Irrigation Management Plan referred to in Attachment 3;

"**licensee**" means Paradise Beef Pty Ltd; and

"**premises**" means Lot 2413 on Plan 131325, Lot 2651 on Plan 136569 and Lot 5135 on Plan 213112 as depicted in Attachment 2.

GENERAL CONDITIONS

1 The licensee shall ensure the head of cattle held in the cattle feedlot as depicted on Attachment 2, does not exceed 1400 head of cattle.

DISCHARGES TO LAND

WASTEWATER IRRIGATION

2 The licensee shall by 1 January 2011, implement the Irrigation Management Plan included as Attachment 3 to this licence and thereafter at all times, ensure that wastewater from the retention pond is applied to the land in accordance with the Irrigation Management Plan.

REPORTING CONDITIONS

ANNUAL AUDIT COMPLIANCE REPORT

3 The licensee shall by 1 September in each year, provide to the CEO an Annual Audit Compliance Report in the form in Attachment 1 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.

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 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:_____

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?

☐ Yes ☐ Reported to DEC verbally Date _____ ☐ Reported to DEC in writing Date _____	☐ 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:_____

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	□	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	□	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	□	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)	□	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	□	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: _____

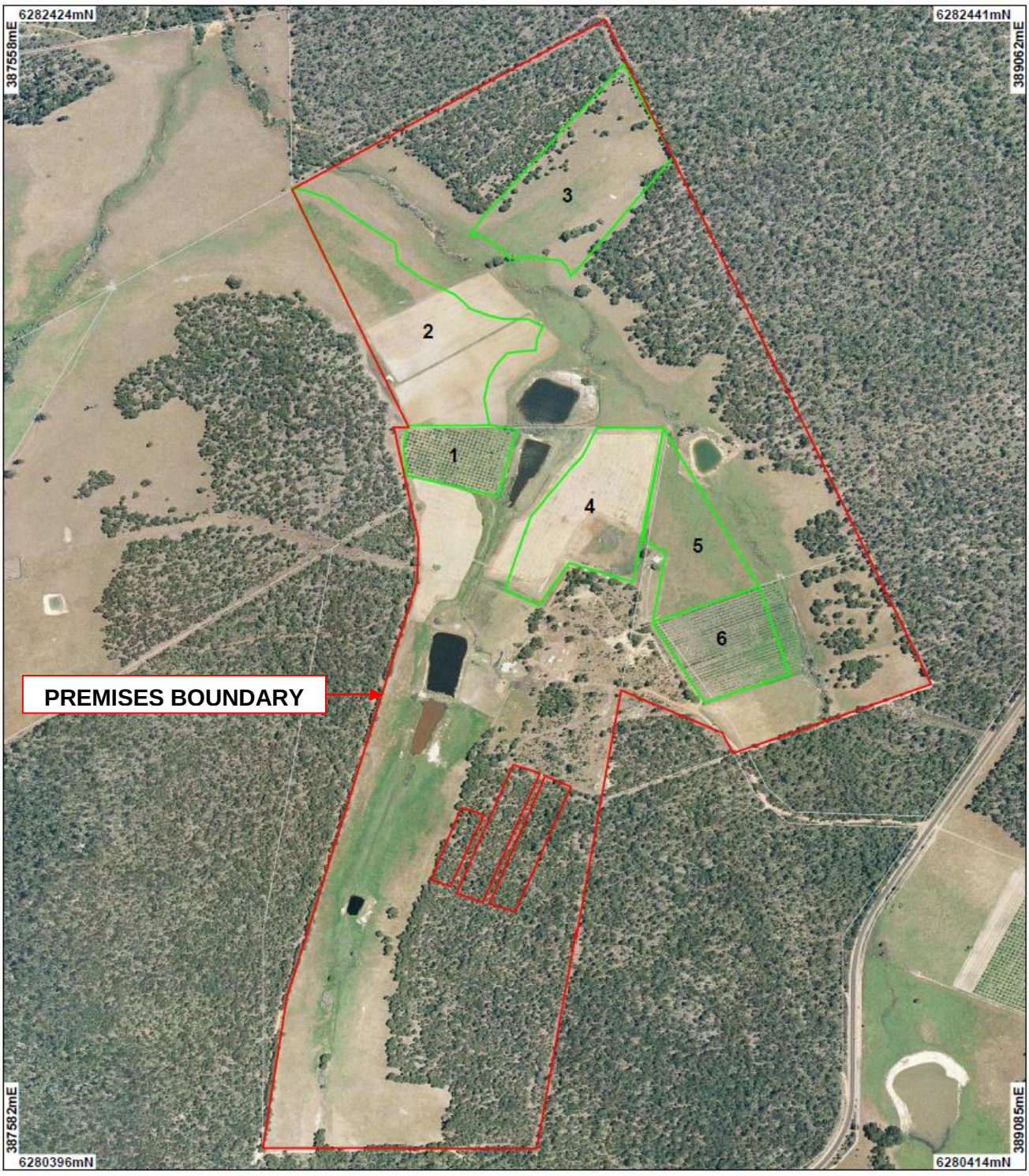
NAME: (printed) _____ NAME: (printed) _____

POSITION: _____ POSITION: _____

DATE: _____/_____/_____ DATE: _____/_____/_____

SEAL (if signing under seal)

PARADISE BEEF PTY LTD
PARADISE BEEF CATTLE FEEDLOT



Irrigation Plan
Paradise Beef, Donnybrook

The wastewater produced at the Paradise Beef Feedlot is to be irrigated on pumpkins, pears and pastures at the property. According to the Department of Agriculture and Food and Department of Water Irrigation Calculator (available at http://www.irrigationcalculator.com), the total annual water demand for the entire irrigation area is 167.65 ML (Table 1). This water demand far exceeds the amount of wastewater captured in the retention pond.

Table 1: Details on the planned irrigation of pumpkins, pears and pasture at Paradise Beef Feedlot, including planting date, irrigation period, area, monthly water use and total water use (ML). This data was calculated assuming an irrigation efficiency of 1.2 and an irrigation proportion of 1.

Crop	Irrigator used	Planting date	Irrigation period*	Area (Ha)	Jan	Feb	Mar	Apr	May	Sept	Oct	Nov	Dec	TOTAL WATER DEMAND (ML)
Pumpkins	**Tee tape drippers**	**1st Oct**	**1st Oct to 18th Feb**	**8**	**18.48**	**10.40**	**-**	**-**	**-**	**-**	**7.49**	**11.95**	**16.22**	**64.54**
Pears	**Overhead sprinklers*** **	**N/A****	**1st Jan to 31st Dec**	**2**	**3.23**	**2.83**	**2.36**	**0.70**	**-**	**0.25**	**0.58**	**1.2**	**2.23**	**13.39**
Pasture	**Travelling sprinklers*** **	**N/A****	**1st Jan to 31st Dec**	**12**	**18.02**	**15.78**	**13.14**	**6.85**	**0.92**	**-**	**7.54**	**11.65**	**15.81**	**89.72**
TOTAL ANNUAL WATER DEMAND FOR ALL IRRIGATION AREAS				***22 ha***	**39.73**	**29.01**	**15.5**	**7.55**	**0.92**	**0.25**	**15.61**	**24.8**	**34.26**	**167.65 ML**

*** this is an approximate period, and will differ according to the season.**
**** planting date is N/A for pears and pastures as they are perennial.**
***** for any aerated irrigation, a 40% atmospheric loss should be included but this is not included in the calculation at this point.**

NB- climate statistics for Margaret River were used in the absence of the relevant data from Donnybrook (Margaret River is approximately 80 km south-west of Donnybrook). Rainfall for Margaret River and Donnybrook is 985 mm and 982 mm respectively, mean maximum temperate is 21.2 ℃ and 23.1 ℃ respectively, and mean minimum temperature is 10.6 ℃ and 9.7 ℃ respectively.

TOTAL VOLUME OF IRRIGATED WASTEWATER

Given that the combined crop at Paradise Beef has an annual water demand of 167 ML, the total volume of wastewater stored in the retention pond will be exhausted every year. Therefore the approximate total volume of wastewater irrigated per year will equal the volume of the pond in that year. Given that the maximum pond volume is 15 ML, the maximum amount of wastewater irrigated in any one year is 15 ML.

PADDOCK LOADING RATES

Table 2: The approximate volume of total nitrogen and phosphorus stored in cattle feedlot effluent ponds (Gardner et al (1994)).

Parameter	Units	Average	Range
Total Nitrogen	mg/L	764	440-890
Total Phosphorus	mg/L	81	50-101

For a high rainfall location, nutrient concentration is likely to be at the lower end of the range- that is, 440 mg/L for N and 50 mg/L for P.

Assuming a full retention pond at the end of winter, total N is likely to be 6.6 tonnes and total P is likely to be 0.75 tonnes.

Table 3: Typical nutrient uptake rates for pastures, pumpkins and pears (based on data contained in Reuter and Robinson (1997) and data provided by Incitec Ltd).

Crop	Nutrient removed (kg/ha/yr)	
	N	P
Irrigated pasture (cut)	400	60
Pears	200	36
Pumpkins	180	52

PARADISE BEEF LOADING RATES

Table 4: Total N and P required, N and P supplied from the retention pond, and the consequent deficiency in N and P.

Crop	Area	Total N required kg	Total P required kg
Pasture	12	4800	720
Pears	2	400	72
Pumpkin	8	1440	416
TOTAL		**6640 kg**	**1208 kg**
Expected supply from retention pond		**6600 kg**	**750 kg**
Deficiency		**40 kg**	**458 kg**

NB - Consideration of nutrient storage in the soil has not been included in these calculations.

RULES OF IRRIGATION

Peak daily water demand may be as high as 9 mm/day in January for pumpkins, 7 mm/day for pears and 6 mm/day for pastures (DAFWA Water Irrigation Calculator).

Irrigation will occur during the months of September to May (Table 1). On a day to day basis, irrigation will occur either early in the morning or late in the afternoon (to avoid evaporation).

All irrigation volumes will be in line with the DAFWA Irrigation Calculator.

There will be minimal rotations, with the pears permanent and the pastures semi-permanent. The same general area will be cultivated for pumpkin production annually.

CONTINGENCY PLANS

Irrigation will cease when rainfall exceeds 5 mm/day. Given that the retention pond will be emptied over summer, this extra volume of wastewater in the pond should not cause the pond to overtop. Should the pond reach maximum capacity while irrigation isn't possible, the water will be sprayed over the surface of the feedlot pens.

NUTRIENT TESTING

Annual soil testing will be conducted prior to crop establishment. The soil testing will consider nitrogen and phosphorous.

Government of Western Australia
Department of Environment Regulation

Decision Document

Environmental Protection Act 1986, Part V

Proponent: Paradise Beef Pty Ltd

Licence: L8473/2010/1

Registered office:	3115 Silipo Road DONNYBROOK WA 6239
ACN:	137 869 259
Premises address:	Paradise Beef Cattle Feedlot Lot 2413 on Plan 131325. Lot 2651 on Plan 136569 and Lot 5135 on Plan 213112 PAYNEDALE WA 6239
Issue date:	Thursday, 18 November 2010
Commencement date:	Monday, 22 November 2010
Expiry date:	Monday, 21 November 2016

Decision

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

Decision Document prepared by:	Terrel MacGregor Licensing Officer
Decision Document authorised by:	Jonathan Bailes Delegated Officer

Contents

1 Purpose of this Document

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

2 Administrative summary

Administrative details		
Application type	Works Approval ☐ New Licence ☐ Licence amendment ☒ Works Approval amendment ☐	
Activities that cause the premises to become prescribed premises	**Category number(s)**	**Assessed design capacity**
	1	1400 animals per annual period
Application verified Application fee paid	Date: N/A Date: N/A	
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☒		
Is the Premises subject to any EPP requirements? Yes☐ No☒		

3 Executive summary of proposal and assessment

Paradise Beef Pty Ltd (PB) is a small family owned business established in 2009. The Paradise Beef cattle feedlot ("feedlot") is located in the South West region of Western Australia, approximately 4.5 km from the town of Donnybrook. The nearest residential premises is located approximately 2 km from the feedlot. The premises is surrounded by the Argyle State Forest (State Forest 27) and is located approximately 800 m from a Priority 1 (P1) and Priority 2 (P2) public drinking water source area (PDWSA). Six water reservoirs are located within the premises boundary, along with two minor perennial watercourses and a major drain. These lead to and join the Preston River approximately 3 km from the premises boundary.

Cattle are purchased by other vendors from sale yards and trucked to the feedlot where they are fed a high-energy ration for an average of 70 days, prior to being trucked off-site to an abattoir. The feedlot has been established within a controlled drainage area and comprises 2 rows with a total of 14 pens. The pen floors consist of compacted gravel and ironstone. Contaminated stormwater runoff from the pens is captured in an evaporation pond via a solids settlement pond. Wastewater is irrigated onsite over pasture and crops. Manure is disposed off-site and carcases are composted on site.

Key emissions from the premises include dust, odour, and discharges to land from the irrigation of effluent to land.

This licence amendment extends the duration of the current licence by 12 months to allow DER further time to consider whether the risk profile of emissions and discharges from the premises has significantly changed. If changes have occurred, DER will amend the conditions relating to emissions and discharges.

4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, 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**
Licence Duration	N/A	DER has decided to extend the duration of the current licence L8473/2010/1 by 12 months until 21 November 2016. This will allow time for DER to consider whether the risk profile of emissions and discharges from the premises has significantly changed. If changes have occurred, DER will amend the conditions relating to emissions and discharges.	DER Guidance statement: *Licence duration*

5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
26/10/2015	Application advertised in West Australian	None received	N/A
18/11/2015	Proponent sent a copy of the draft instrument	None received	N/A

6 Risk Assessment

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

Table 1: Emissions Risk Matrix

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