Government of Western Australia
Department of Environment Regulation

Licence

Environmental Protection Act 1986, Part V

Licensee: V & V Walsh Pty Ltd

Licence: L6001/1989/15

Registered office: 235 St Georges Terrace
PERTH WA 6000

ACN: 100 834 455

Premises address: V & V Walsh Abattoir
Lot 1 Rawling Road
DAVENPORT WA 6230
Being Lot 1 on Diagram 12060, Lot 5 on Diagram 50137 and part of Lot 1050 on Plan 33291 as depicted in Schedule 1.

Issue date: Thursday, 1 October 2015

Commencement date: Sunday, 4 October 2015

Expiry date: Wednesday, 3 October 2018

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
15	Abattoir: premises on which animals are slaughtered.	1 000 tonnes or more per year	47 000 tonnes per annual period
16	Rendering Operations: premises on which substances from animal material are processed or extracted.	100 tonnes or more per year	9 000 tonnes per annual period
55	Livestock saleyard or holding pen: premises on which live animals are held pending their sale, shipment or slaughter.	10 000 animals or more per year	900 000 animals per annual period

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

Date signed: 01 October 2015
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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.

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

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

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

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

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

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

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

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

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

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

Licence fees
If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non payment of annual licence fees will result in your licence ceasing to have effect 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
V & V Walsh Pty Ltd (V & V Walsh) operate a sheep and beef cattle abattoir and meat wholesaler in the suburb of Davenport approximately 6 km southeast of the Bunbury CBD and 160 km south of Perth. The land is zoned under the City of Bunbury Planning Scheme No. 7 for Special Use (17, 18 Abattoir). The plant has been operating since the early 1960s and is an AUS-MEAT accredited export abattoir. The abattoir has the ability to process up to 3 500 sheep and 400 beef cattle per day.

Surrounding land comprises a variety of zoning including general farming and rural properties north, south and east of the premises, and the Halifax and Davenport Light Industrial Areas to the northwest and west of the premises. A firing range is immediately west of the premises. The nearest residential areas are over 1000 m from the premises. The site is located within the Preston River (Leschenault Estuary Preston River) catchment and the Preston River follows the eastern premises boundary. A minor tributary runs through the north east corner of the premises and terminates in the Preston River. A conservation category wetland is located on the western premises boundary.

The site accepts lambs, sheep and cattle by truck which is held in holding pens, paddocks or lairage facilities pending slaughter. Animals are washed before entering the abattoir where they are slaughtered in the kill room, before being skinned, eviscerated and further processed to form a carcass. The premises also includes meat trimming, packaging, cold storage, and distribution facilities which are currently leased by Woolworths Pty Ltd to produce retail packaged meat. Wastes produced on the premises include wastewater, blood, skins, solid animal waste (paunch, bone, fat, offal and trimmings), screening solids, and manure. Offal, fat and bone are processed in the on-site rendering plant. Skins and beef hides are treated on site for sale or further processing offsite. Kill floor trimmings, paunch and blood are separated prior to off-site disposal to licensed disposal facilities. Manure is collected and sent to a licensed, offsite composting facility for disposal.

Wastewater is treated via the on-site wastewater treatment system (WWTS). All abattoir, rendering plant and biofilter wastewater is directed through a ‘Save All’ and Dissolved Air Flotation (DAF) unit via a rotary screen. Water from the DAF unit is further treated through three anaerobic (currently only one pond is active) and three facultative ponds with final treatment in an oxidation pond. Wastewater from the livestock holding pens and washdown areas is directed through a sediment trap prior to entering the wastewater treatment ponds. Treated wastewater is used for cattle and sheep yard washdown, turf farm irrigation via a central pivot (year round), and on site irrigation of pasture and a treelot (winter) within Lot 1 of the premises. The high nutrient wastewater stream from the cattle lairage is separated and tankered offsite for disposal at a licensed composting facility.

Key issues associated with operation of the facility include solid waste management and wastewater and irrigation management. Nutrient levels in irrigation water have historically been high resulting in exceedance of the irrigation loading limits specified in the licence. Improvements to the WWTS and water reduction initiatives have resulted in reduced nutrient loading rates, most significantly for nitrogen. Improvements have included introduction of the DAF unit to remove fats and solids, desludging and re-lining of the wastewater treatment ponds, export of high strength lairage effluent to a licensed composting facility, additional aeration in the facultative treatment ponds, and improved screening of the process wastewater stream.

This Licence is the successor to licence L6001/1989/14 and includes conversion to the current licence template.

The licences and works approvals issued for the Premises since 30/09/2003 are:

Instrument log		
Instrument	**Issued**	**Description**
L6001/07	30/09/2003	Licence re-issue
L6001/08	21/09/2004	Licence re-issue
L6001/09	29/08/2005	Licence re-issue
L6001/10	21/09/2006	Licence re-issue
L6001/1987/11	11/10/2007	Licence re-issue
L6001/1987/12	02/10/2008	Licence re-issue
L6001/1987/13	01/10/2009	Licence re-issue with new conditions and environmental assessment report in response to Prevention Notice
W4597/2009/1	28/01/2010	Works approval to install additional infrastructure to increase the capacity of the red meat processing and packing facility
W4826/2010/1	16/12/2010	Works approval to construct lairage sheds
L6001/1987/14	27/09/2012	Licence re-issue
W5619/2014/1	10/09/2015	Works approval to extend the lairage yard
L6001/1987/15	01/10/2015	Licence re-issue

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

END OF INTRODUCTION

Licence conditions

1 General

1.1 Interpretation

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

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

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

'AHD' means the Australian height datum;

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

'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;*

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

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

'CEO' for the purpose of correspondence means;

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 L6001/1989/15 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;

'quarterly' means the 4 inclusive periods from 1 January to 31 March, 1 April to 30 June, 1 July to 30 September, 1 October to 31 December in the same year;

'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 the same year;

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

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

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 must ensure that material specified in Table 1.3.1 is only stored and/or treated within vessels or compounds provided with the infrastructure detailed in Table 1.3.1.

Table 1.3.1: Containment infrastructure		
Containment point reference	**Material**	**Infrastructure requirements**
Anaerobic Ponds (Pond 0 - Pond 2)	Wastewater from the DAF plant and livestock wastewater tank[1]	1.5mm Huitex Geomembrane lined to achieve a permeability of $<1x10^{-9}$ m/s. When operational, the ponds shall be fitted with a cover with off-gases directed to a biofilter.
Facultative Ponds (Pond 3 - Pond 5)	Wastewater from the anaerobic ponds	1.5mm HDPE lined to achieve a permeability of $<1x10^{-9}$ m/s.
Oxidation Pond (Pond 6)	Wastewater from the facultative ponds	Clay lined.
Dissolved Air Floatation unit (DAF)	Wastewater from the Save All and rotary screen	Impermeable tank located within a concrete bunded hardstand area capable of retaining leakages and with a drainage system that can return collected wastewater to the WWTS.
Paunch Pad	Paunch waste, screening solids and high strength effluent from the beef lairage	Stored in tankers parked on a concrete bunded hardstand area capable of preventing surface run-off of leachate and with a drainage system that can return leachate to the WWTS.
Abattoir animal waste trailer	Animal wastes from the abattoir screw extractor	Stored in sealed metal bins in the abattoir which are emptied into a sealed (open top) semi-trailer parked on a bitumised area.
Skin shed	Lamb skins and beef hides	Enclosed building with concrete flooring.
Blood containment tanker	Animal blood from the kill floors	Enclosed, impermeable tanker parked on a bitumised area that directs runoff and spillages to the WWTS.
Rendering plant	Offal, fat and bone	Enclosed building with concrete flooring capable of preventing surface runoff of wastewater and with a drainage system that can return wastewater to the WWTS. Exhaust gases from the cookers emitted to air through a biofilter.

Note 1: In the event of the failure or malfunction of the dissolved air flotation unit, wastewater from the Save All and rotary screen can be directed to the anaerobic ponds.

1.3.2 The Licensee shall ensure that all wastes, where they are not taken offsite for lawful use or disposal, are only subjected to the processes set out in Table 1.3.2 and in accordance with any process limits described in that table.

Table 1.3.2: Waste processing		
Waste type	**Process**	**Process limits**
Offal, fat and bone	Rendering	- In the event of a malfunction which prevents the operation of the rendering plant for 24 hours or more, waste material shall be sent to an alternative licenced disposal facility; - Animal waste material shall be stored in an enclosed building, vessel or tank prior to rendering; - Animal waste material shall not be stored for longer than 24 hours prior to rendering; - Exhaust gases from the cookers shall be directed to a biofilter prior to release into the atmosphere.
Wastewaters from the abattoir, rendering plant, biofilter, lairages, livestock holding yards and paunch pad	Wastewater treatment	- Wastewaters shall be directed to the onsite wastewater treatment system via a 'Save All'.
Treated wastewater	Irrigation	- Irrigation shall only occur in the designated irrigation areas identified on the map of emission and monitoring points in Schedule 1; - Treated wastewater is evenly distributed over the irrigation areas; - No soil erosion or ponding of wastewater occurs; - There is no direct runoff, spray drift or discharge beyond the irrigation areas; - Healthy vegetation cover is maintained over the irrigation area; - Irrigation shall not occur within fifty metres of any defined watercourse or drain; - Irrigation does not occur during periods of rainfall or onto flooded areas.

1.3.3 The Licensee shall manage all wastewater treatment ponds such that:

(a) overtopping of the ponds does not occur;
(b) a minimum top of embankment freeboard of 300mm is maintained;
(c) wastewater shall enter the anaerobic treatment ponds below the water surface;
(d) the integrity of the containment infrastructure is maintained;
(e) stock are prevented from walking on the pond embankments;
(f) all uncontaminated stormwater runoff shall be prevented from entering the ponds or causing erosion of the outer pond embankments;
(g) vegetation and floating debris (emergent or otherwise) does not encroach onto pond surfaces or inner pond embankments; and
(h) trapped overflows are maintained on the outlets of ponds to prevent carry-over of surface floating matter.

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 land

2.2.1 The Licensee shall ensure that where waste is emitted to land from the emission points in Table 2.2.1 and identified on the Map of emission points and monitoring locations in Schedule 1 it is done so in accordance with the conditions of this Licence.

Table 2.2.1: Emissions to land

Emission point reference	Emission point reference on Map of emission points and monitoring locations	Description	Source including abatement
L1	Turf Farm	Central pivot irrigation of a 13 ha grassed field	Treated abattoir wastewater from Pond 6 of the WWTS
L2	On Site Irrigation Area	Sprinkler irrigation of two areas of pasture and trickle irrigation of tree plantations totalling 45 ha	Treated abattoir wastewater from Pond 6 of the WWTS

2.2.2 The Licensee shall not cause or allow emissions to land greater than the limits listed in Table 2.2.2.

Table 2.2.2: Emission limits to land

Emission point reference	Parameter	Limit (including units)	Averaging period
L1	Total nitrogen	600 kg/ha	Annual
	Total phosphorus	180 kg/ha	
L2	Total inorganic nitrogen	180 kg/ha	Annual
	Reactive phosphorus	20 kg/ha	

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.

3.1.2 The Licensee shall ensure that :
(a) monthly monitoring is undertaken at least 15 days apart;
(b) quarterly monitoring is undertaken at least 45 days apart; and
(c) six monthly monitoring is undertaken at least 5 months apart.

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

3.1.4 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 emissions to land

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

Table 3.2.1: Monitoring of emissions to land

Emission point reference	Monitoring point reference and location on Map of emission points	Parameter	Units	Frequency
L1 and L2	M1	Volumetric flow rate	m^3/day	Monthly
	M2	pH	-	Quarterly
		Total dissolved solids, total suspended solids, 5-day biochemical oxygen demand, total nitrogen, total inorganic nitrogen, nitrite and nitrate nitrogen, ammonium-nitrogen total phosphorus and reactive phosphorus	mg/L	

3.3 Monitoring of inputs and outputs

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: Monitoring of inputs and outputs

Input/Output	Parameter	Units	Averaging period	Frequency
Livestock received at the premises	Animals	Number	Monthly	Each batch arriving at the premises
Livestock processed through the abattoir	Hot carcass weight	Tonnes		Each batch received at the abattoir
Animal waste material rendered (offal, fat and bone)	Waste material	Tonnes		Each load entering the rendering plant

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: Monitoring of ambient surface water quality				
Monitoring point reference and location	**Parameter**	**Units**	**Averaging period**	**Frequency**
WQ1	pH		Spot sample	Quarterly when flowing[1]
	Total dissolved solids, total suspended solids, 5-day biochemical oxygen demand, total nitrogen and total phosphorus	mg/L		

Note 1: Sample can be collected further upstream if sample location is dry

Table 3.4.2: Monitoring of ambient groundwater quality				
Monitoring point reference and location	**Parameter**	**Units**	**Averaging period**	**Frequency**
GQ1 – GQ4	Standing water level	m(AHD)	Spot sample	Six monthly
	pH			
	Total dissolved solids, total nitrogen and total phosphorus	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.

Table 4.1.1: Improvement program		
Improvement reference	**Improvement**	**Date of completion**
IR1	The Licensee shall submit to the CEO an updated Nutrient Irrigation Management Plan (NIMP) prepared in accordance with *Water Quality Protection Note 33 Nutrient and Irrigation Management Plans,* Department of Water (June 2010). The NIMP shall include, but not be limited to: (i) An assessment of the adequacy of the irrigation areas based on: (a) Hydraulic loading rates (soil moisture rates); (b) Nutrient loading rates; and (c) Biochemical Oxygen Demand loading rates; (ii) A monthly water balance assessing the adequacy of the storage capacity of the wastewater treatment system; (iii) A nutrient balance which clearly identifies the availability of nutrients from each source, vegetation uptake rates, soil storage capacity, and environmental loss during the assessment year and accounts for any nutrient credits for following years; (iv) An assessment of the total nutrient application rate to the irrigation areas (kg/ha/year) based on (i); (v) A contingency plan for storage of wastewater during wet weather periods when irrigation may not occur or irrigation volumes may be lower; (vi) A qualitative and quantitative risk assessment to determine acceptable nutrient application rates to minimise the potential of soil, surface water or groundwater contamination; (vii) Identification of any improvements required; and (viii) Details of any proposed management measures, including timelines that can be implemented to reduce the risk of potential environmental impacts that may occur as a result of maximum recommended nutrient loading rates being exceeded.	1 March 2016

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.

5.2 Reporting

5.2.1 The Licensee shall submit to the CEO an Annual Environmental Report within 60 calendar days after the end of the annual period. The report shall contain the information listed in Table 5.2.1 in the format or form specified in that table.

Table 5.2.1: Annual Environmental Report

Condition or table (if relevant)	Parameter	Format or form[1]
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified
Table 2.2.2	Annual emissions to land loadings for the Turf Farm (L1) - Total Nitrogen and Total Phosphorous, and On-Site Irrigation Area (L2) – Total Inorganic Nitrogen and Reactive Phosphorous	
Table 3.2.1	Volumetric flow rate, pH, total dissolved solids, total suspended solids, 5-day biochemical oxygen demand, total nitrogen, total inorganic nitrogen, nitrite and nitrate nitrogen, ammonium-nitrogen total phosphorus and reactive phosphorus	
Table 3.3.1	Livestock received at premises, Livestock processed through the abattoir and animal waste material rendered	
Table 3.4.1	pH, total dissolved solids, total suspended solids, 5-day biochemical oxygen demand, total nitrogen and total phosphorus	
Table 3.4.2	Standing water level, pH, total dissolved solids, 5-day biochemical oxygen demand, total nitrogen and total phosphorus	
5.1.3	Compliance	Annual Audit Compliance Report (AACR)
5.1.4	Complaints summary	None specified

Note 1: Forms are in Schedule 2

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

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

Table 5.2.2: Non-annual reporting requirements				
Condition or table (if relevant)	**Parameter**	**Reporting period**	**Reporting date (after end of the reporting period)**	**Format or form[1]**
-	Copies of original monitoring reports submitted to the Licensee by third parties	Not Applicable	Within 14 days of the CEOs request	As received by the Licensee from third parties

5.3 Notification

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

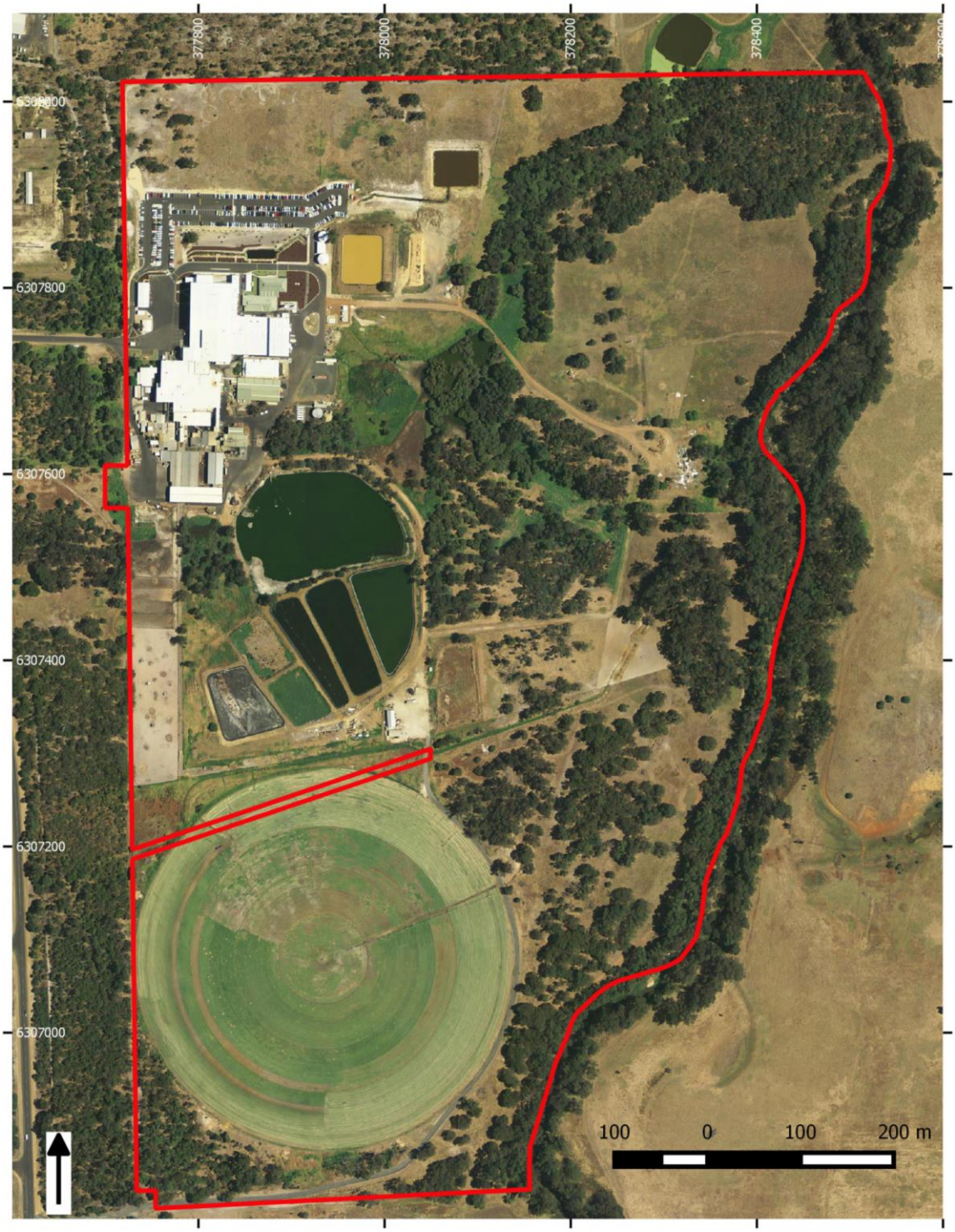
Table 5.3.1: Notification requirements			
Condition or table (if relevant)	**Parameter**	**Notification requirement[1]**	**Format or form[2]**
2.1.1	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1
3.1.5	Calibration report	As soon as practicable.	None specified

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act
Note 2: Forms are in Schedule 2

Schedule 1: Maps

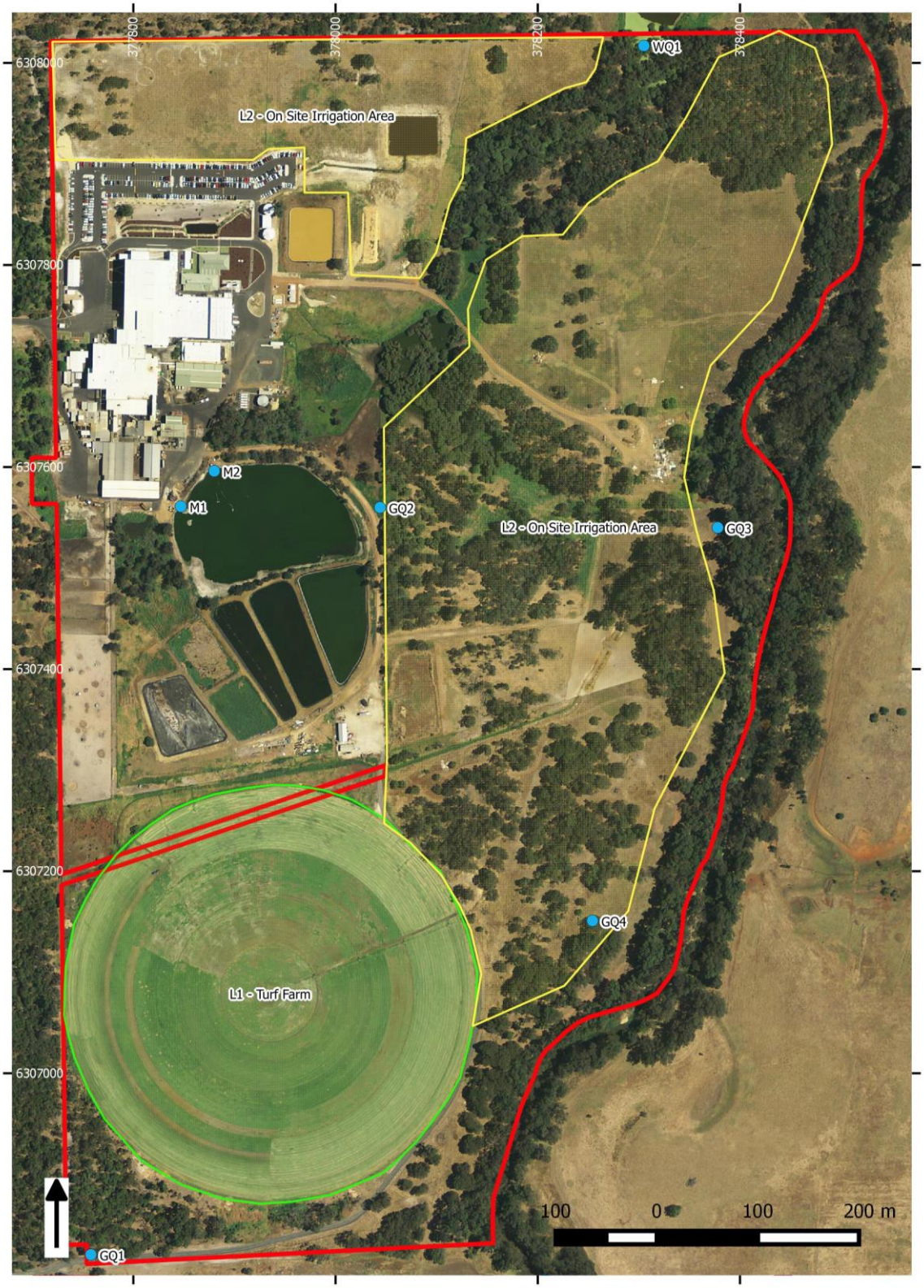
Premises map

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



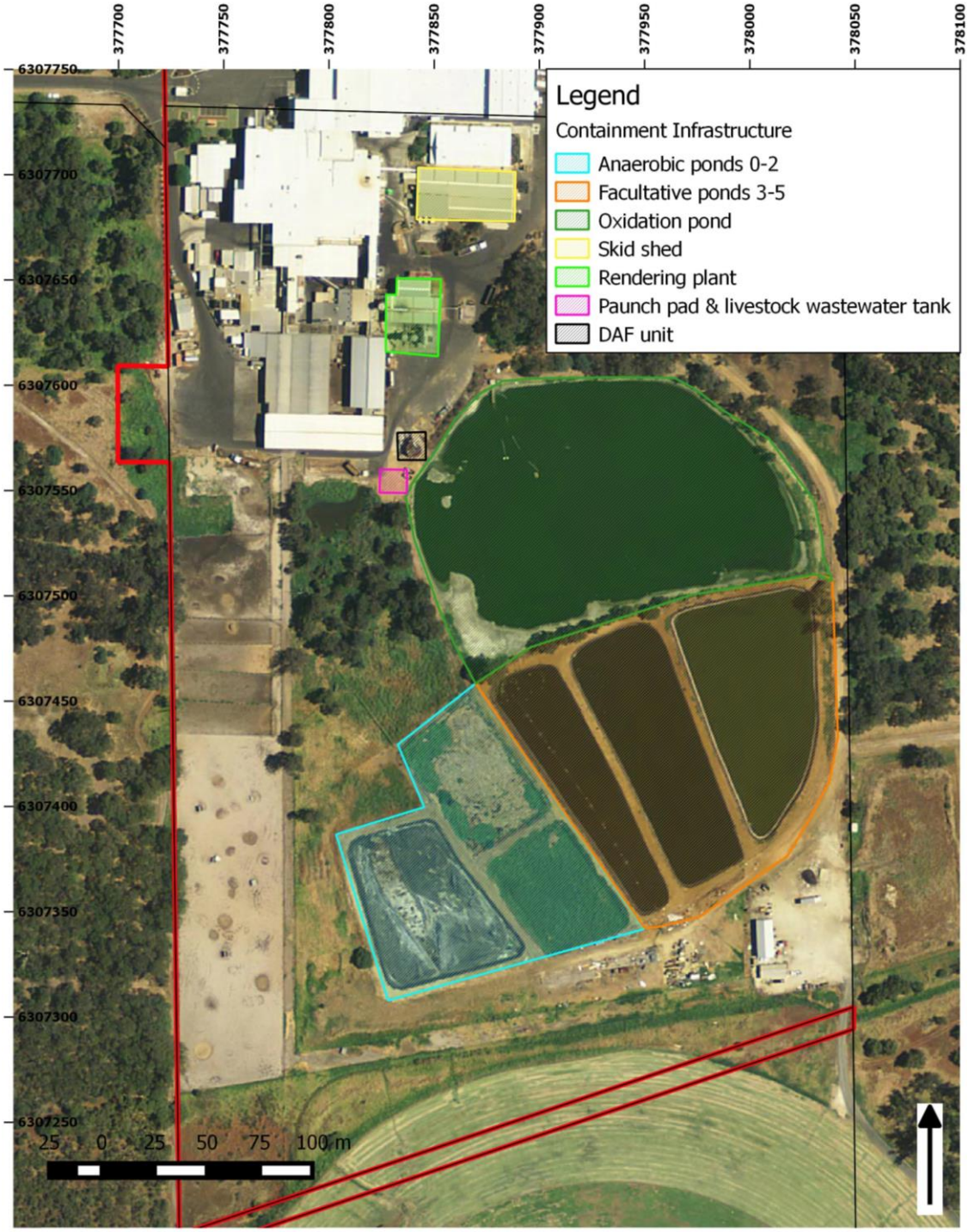
Map of emission points and monitoring locations

The locations of the emission points defined in Table 2.2.1 and monitoring points defined in Tables 3.2.1, 3.4.2 and 3.4.2 are shown below.



Map of storage locations

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



Schedule 2: Reporting & notification forms

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

ANNUAL AUDIT COMPLIANCE REPORT PROFORMA

SECTION A

LICENCE DETAILS

Licence Number:	Licence File Number:
Company Name: 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 DER?:	
☐ Yes ☐ Reported to DER verbally Date _____ ☐ Reported to DER in writing Date _____	☐ No
d) Has DER taken, or finalised any action in relation to the non compliance?:	
e) Summary of particulars of the non compliance, and what was the environmental impact:	
f) If relevant, the precise location where the non compliance occurred (attach map or diagram):	
g) Cause of non compliance:	
h) Action taken, or that will be taken to mitigate any adverse effects of the non compliance:	
i) Action taken or that will be taken to prevent recurrence of the non compliance:	

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

Initial:

SECTION C

SIGNATURE AND CERTIFICATION

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

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

If the licence holder is		The Annual Audit Compliance Report must be signed and certified:
An individual	□	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: L6001/1989/15 Licensee: V & V Walsh 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	
Name of operator	
Location of Premises	
Time and date of the detection	

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

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 V & V Walsh Pty Ltd	
Date	

Government of Western Australia
Department of Environment Regulation

Decision Document

Environmental Protection Act 1986, Part V

Proponent: V & V Walsh Pty Ltd

Licence: L6001/1989/15

Registered office:	235 St Georges Terrace PERTH WA 6000
ACN:	100 834 455
Premises address:	V & V Walsh Abattoir Lot 1 Rawling Road DAVENPORT WA 6230 Being Lot 1 on Diagram 12060, Lot 5 on Diagram 50137 and part of Lot 1050 on Plan 33291
Issue date:	Thursday, 1 October 2015
Commencement date:	Sunday, 4 October 2015
Expiry date:	Wednesday, 3 October 2018

Decision

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

Decision document prepared by:	Amine Callegari 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 for a works approval or licence, and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986.* Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.

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**
	15: Abattoir	47 000 tonnes per year
	16: Rendering Operations	9 000 tonnes per year
	55: Livestock saleyard or holding pen	900 000 animals per year
Application verified Application fee paid	Date: 21 July 2015 Date: 28 July 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	NA	
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 (Swan Coastal Plain Lakes) Policy 1992		
Is the Premises subject to any EPP requirements? Yes☐ No☒		

3 Executive summary of proposal

V & V Walsh Pty Ltd (V & V Walsh) operate a sheep and beef cattle abattoir and meat wholesaler in the suburb of Davenport approximately 6 km southeast of the Bunbury CBD and 160 km south of Perth. The land is zoned under the City of Bunbury Planning Scheme No. 7 for Special Use (17, 18 Abattoir). The plant has been operating since the early 1960s and is an AUS-MEAT accredited export abattoir. The abattoir has the ability to process up to 3 500 sheep and 400 beef cattle per day.

Surrounding land comprises a variety of zoning including general farming and rural properties north, south and east of the premises, and the Halifax and Davenport Light Industrial Areas to the northwest and west of the premises. A firing range is immediately west of the premises. The nearest residential areas are over 1000 m from the premises. The site is located within the Preston River (Leschenault Estuary Preston River) catchment and the Preston River follows the eastern premises boundary. A minor tributary runs through the north east corner of the premises and terminates in the Preston River. A conservation category wetland is located on the western premises boundary.

The site accepts lambs, sheep and cattle by truck which is held in holding pens, paddocks or lairage facilities pending slaughter. Animals are washed before entering the abattoir where they are slaughtered in the kill room, before being skinned, eviscerated and further processed to form a carcass. The premises also includes meat trimming, packaging, cold storage, and distribution facilities which are currently leased by Woolworths Pty Ltd to produce retail packaged meat. Wastes produced on the premises include wastewater, blood, skins, solid animal waste (paunch, bone, fat, offal and trimmings), screening solids, and manure. Offal, fat and bone are processed in the on-site rendering plant. Skins and beef hides are treated on site for sale or further processing offsite. Kill floor trimmings, paunch and blood are separated prior to off-site disposal to licensed disposal facilities. Manure is collected and sent to a licensed, offsite composting facility for disposal.

Wastewater is treated via the on-site wastewater treatment system (WWTS). All abattoir, rendering plant and biofilter wastewater is directed through a ‘Save All’ and Dissolved Air Flotation (DAF) unit via a rotary screen. Water from the DAF unit is further treated through three anaerobic (currently only one pond is active) and three facultative ponds with final treatment in an oxidation pond. Wastewater from the livestock holding pens and washdown areas is directed through a sediment trap prior to entering the wastewater treatment ponds. Treated wastewater is used for cattle and sheep yard washdown, turf farm irrigation via a central pivot (year round), and on site irrigation of pasture and a treelot (winter) within Lot 1 of the premises. The high nutrient wastewater stream from the cattle lairage is separated and tankered offsite for disposal at a licensed composting facility.

Key issues associated with operation of the facility include solid waste management and wastewater and irrigation management. Nutrient levels in irrigation water have historically been high resulting in exceedance of the irrigation loading limits specified in the licence. Improvements to the WWTS and water reduction initiatives have resulted in reduced nutrient loading rates, most significantly for nitrogen. Improvements have included introduction of the DAF unit to remove fats and solids, desludging and re-lining of the wastewater treatment ponds, export of high strength lairage effluent to a licensed composting facility, additional aeration in the facultative treatment ponds, and improved screening of the process wastewater stream.

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**
General conditions	L1.2.3	Emission Description *Emission:* Contaminated stormwater runoff from waste storage areas, the abattoir, lairages and irrigation areas containing high levels of salinity, sediments and nutrients. *Impact:* Contamination of surrounding land and surface water systems. Potential impacts on the ecology of surface water systems from the addition of nutrients, sediment and salt and reduced oxygen. There are a number of sensitive surface water receivers in the vicinity of the premises which could be impacted if they receive contaminated stormwater runoff. These include the Preston River located on the eastern premises boundary (400m from abattoir and wastewater infrastructure) with a tributary running through the north-east corner of the premises and a conservation category wetland area on western boundary of the premises (<100m from wastewater ponds). *Controls:* Abattoir and meat processing activities are conducted within enclosed buildings and lairages are roofed to reduce the volume of contaminated stormwater generated. The premises has an established stormwater management system which handles uncontaminated and potentially contaminated water via separate infrastructure to minimise the risk of uncontaminated stormwater becoming contaminated. All runoff from areas where there are potential contaminants including solid waste storage areas, livestock holding yards, lairages and unloading areas are directed into the WWTS via drains, sumps and/or a 'Save All' . Uncontaminated stormwater from buildings and general bitumised areas is piped or channelled to stormwater pits and collection basins prior to discharge through a series of channels to the tributary feeding the Preston River in the north east corner of the premises.	Application supporting documentation W5619/2014/1 supporting documentation W4597/2009/1 supporting documentation V & V Walsh Environmental Management Plan 2011

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*: Minor *Likelihood:* Unlikely *Risk Rating:* Moderate Regulatory Controls Condition 1.2.3 has been included on the licence to ensure effective stormwater management is continued and all contaminated or potentially contaminated stormwater is collected for treatment. Residual Risk *Consequence*: Minor *Likelihood:* Unlikely *Risk Rating:* Moderate	
Premises operation	L1.3.1-L1.3.3	Emission Description *Emission:* Discharge of contaminated wastewater, partially treated wastewater or animal wastes to the surrounding environment from the abattoir, rendering plant, biofilter, WWTS, waste storage areas, lairages or livestock holding yards. *Impact:* Contamination of surrounding land, surface and ground water systems due to high nutrient and sediment levels in wastewaters and organic wastes from the abattoir. High nutrient levels can result in eutrophication of surface water systems or contamination of groundwater systems which may affect sensitive receptors. Groundwater levels range from 3-5 metres below ground level and flow is generally easterly toward the Preston River. Outcropping of the groundwater table can occur in low lying areas during the winter period. The Preston River is located 400 m east of the abattoir and wastewater treatment infrastructure and a conservation category wetland is located adjacent to the livestock holding yards and wastewater treatment ponds.	Application supporting documentation W5619/2014/1 supporting documentation W4597/2009/1 supporting documentation V & V Walsh Environmental Management Plan 2011

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		Controls: Slaughter and processing of animals is undertaken within enclosed buildings with all wastes, wastewater and blood collected and disposed to an appropriately licensed disposal site or is treated on site. Wastewaters are directed to the WWTS for treatment; blood is channelled into concrete tanks for temporary storage pending daily removal to a licensed disposal facility by an enclosed tanker, and solid wastes are directed into metal storage bins pending rendering or transfer to a semi-trailer for disposal to a licensed facility. Lairages have bunded concrete bases to contain all solid and liquid animal wastes and wastewaters to prevent discharge to the environment. Solid wastes are removed routinely to a trailer and are sent to an appropriately licensed disposal site. Liquid wastes are channelled via concrete drains to a sump and then discharged to the anaerobic treatment ponds. High strength liquid wastes from the beef lairages are pumped to a tanker for offsite disposal at a licensed facility to reduce nutrient load on the WWTS. Risk Assessment *Consequence:* Moderate *Likelihood:* Unlikely *Risk Rating:* Moderate Regulatory Controls Condition 1.3.1 has been included on the licence to specify infrastructure where potentially harmful wastes can be stored and/or treated, to ensure only approved containment infrastructure, suitably designed to prevent discharge of contaminated wastes to the environment is used. Condition L1.3.2 has been added to the Licence to ensure that where wastes are processed on site, rather than sent offsite for disposal, they are appropriately managed to minimise the risk of environmental impact. Part of this condition replicates the requirements of previous licence condition 15. Condition L1.3.3 has been included on the licence to specify management measures necessary to ensure the likelihood of releases of partially treated wastewater from the	V & V Walsh Update of Environmental Improvement Plan 2013

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		wastewater ponds is minimised. This condition also replaces the requirements of previous licence condition 13. Residual Risk *Consequence:* Minor *Likelihood:* Unlikely *Risk Rating:* Moderate	
Emissions General	L2.1.1	The licence contains emission limits for discharges to land therefore condition 2.1.1 has been included on the licence requiring the investigation and recording of all limit exceedances.	Application supporting documentation L6001/1989/14
Point source emissions to air including monitoring	N/A	No significant point source emissions to air are known to occur from the premises therefore conditions specific to this are not required in the licence. Previous conditions 4 and 5 relating to management of dark smoke emissions from chimneys have not be replicated in the reissued licence as they are covered by the requirements of the *Environmental Protection (Unauthorised Discharges) Regulations 2004*. The licensee has also replaced the old boilers with two new reducing the likelihood of dark smoke emissions being produced.	Application supporting documentation *Environmental Protection (Unauthorised Discharges) Regulations 2004*
Emissions to land including monitoring	L2.2.1-L2.2.2 L3.2.1	For DER's assessment of emissions to land including monitoring see Appendix A.	Application supporting documentation W5619/2014/1 supporting documentation W4597/2009/1 supporting

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
			documentation V & V Walsh Environmental Management Plan 2011 V & V Walsh Update of Environmental Improvement Plan 2013
Fugitive emissions	NA	Licence L6001/1989/14 contained fugitive dust conditions (condition 3). The risk of fugitive dust has been reviewed as part of this licence reissue. <u>Emission Description</u> *Emission:* Potential for fugitive dust emissions due to stock movement within livestock holding yards and during animal deliveries or transfers. There is also the potential for dust lift off from truck movements on internal trafficable areas and from open holding yards. Fugitive dust emissions are more likely to occur during the summer months when there are sustained periods of hot, dry and windy conditions. *Impact:* Reduced local air quality causing a nuisance. *Controls:* The surrounding area comprises farm land and industrial premises - the nearest sensitive receptors are more than 1 000m from the premises. The previous licence L6001/1989/14 contained condition 3 requiring the licensee to prevent visible dust from crossing the boundary of the premises. Consequently the licensee has implemented measures to minimise the risk of dust generation such as water sprays in livestock holding yards and raceways, roofed lairages, planting of vegetation in open areas where practical, and bitumen sealing of all roads and carparks within the abattoir. DER has no recent records of dust complaints relating to the premises.	General provisions of the *Environmental Protection Act 1986* Application supporting documentation Part V licence L6001/1989/14 V & V Walsh Environmental Management Plan 2011

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:* Insignificant *Likelihood*: Unlikely *Risk Rating:* Low Regulatory Controls As fugitive dust is assessed to be low risk, the reissued licence will not include specific conditions relating to control of fugitive dust emissions. The licensee is required to comply with the general provisions of the *Environmental Protection Act 1986*.	
Odour	NA	Emission Description *Emission:* Potential for odour from the abattoir, rendering facility, lairage yards, wastewater treatment system and solid waste storage. *Impact:* Emission of odour which impacts beyond the premises boundary and potentially can cause amenity impacts on nearby sensitive receptors. As the premises is primarily surrounded by farm land and industrial areas the nearest residential area is more than 1000 m from the abattoir infrastructure outside the recommended odour buffer. *Controls:* The abattoir operations are conducted within enclosed buildings. Rendering is conducted within an enclosed building with enclosed equipment (continuous cookers, decanter, Keith press). Roller doors on either side of the building are open during operations due to the continuous nature of the activity however odours generated from the equipment are directed via ducting to a biofilter for treatment. A cover is maintained on the anaerobic ponds when they are operational to minimise odour and promote anaerobic conditions. Solids animal wastes, paunch, screening wastes, blood and high nutrient water from the cattle lairage are removed from the premises on a daily basis for offsite disposal. Historically odour complaints have only been received during wastewater treatment pond maintenance works and in relation to poor management of the rendering plant biofilter and ductworks. Recent	General provisions of the *Environmental Protection Act 1986* L6001/1989/14 Environmental Assessment Report V & V Walsh Environmental Management Plan 2011 DER Guidance Statement - Separation Distances, Draft 2015

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		improvements in management of the biofilter and the WWTS, such as additional screening, covering of the anaerobic pond and desludging of the wastewater treatment ponds, have assisted in reducing odour emissions with no complaints being received by the Department since March 2012. Risk Assessment *Consequence:* Minor *Likelihood*: Rare *Risk Rating:* Low Regulatory Controls Condition 1.3.2 specifies requirements to be met when undertaking rendering on site to minimise the likelihood of odour emissions being generated by the activity which could impact beyond the premises boundary. There have been no odour complaints in the last 3 years. The general provisions of the *Environmental Protection Act 1986* are considered sufficient to regulate the risk. Residual Risk *Consequence*: Minor *Likelihood:* Rare *Risk Rating:* Low	
Noise	NA	Licence L5423/1990/14 did not contain any specific noise conditions and the DER has not received any complaints regarding noise associated with the premises. There have been no changes likely to have increased noise levels from the premises; therefore noise has not been re-assessed as part of this licence reissue. Consistent with previous versions, the licence does not contain any specific noise conditions. Noise emissions are adequately managed through the *Environmental Protection (Noise) Regulations 1997*.	Application supporting documentation General provisions of the *Environmental Protection Act 1986*
Monitoring	L3.1.1-L3.1.4	Ambient environmental quality and discharge to land monitoring is included in the	Application supporting

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
general		licence. Therefore, general monitoring conditions relating to collection, preservation and testing of samples (L3.1.1), monitoring intervals (L3.1.2), and monitoring equipment calibration requirements (L3.1.3-3.1.4) have been included.	documentation
Monitoring of inputs and outputs		The previous licence L6001/1989/14 included a requirement for a monthly record of the number of animals processed at the abattoir. This requirement has been replaced with condition 3.3.1 and expanded to include the weight of livestock processed and the weight of material processed through the rendering plant. This is to ensure that records exist to demonstrate compliance with the approved premises production or design capacity for the licensed categories.	Application supporting documentation Part V licence L6001/1989/14
Ambient Quality Monitoring	L3.4.1	For further details on ambient surface and ground water quality monitoring requirements see DERs assessment of emissions to land in Appendix A. <u>Emission Description</u> *Emission:* Seepage of contaminated wastewater (elevated nutrient and salinity levels) from infrastructure on site including lairages, the abattoir and wastewater treatment infrastructure. *Impact:* Reduction in local groundwater quality due to elevated nutrient levels with potential impacts on nearby surface water systems which could experience eutrophication if affected by groundwater inflow with high nutrient levels. The depth to groundwater on the premises is approximately 3-5 meters below ground level (mbgl) and flow is generally easterly toward the Preston River. There are a number of sensitive surface water receivers in the vicinity of the premises including the Preston River located on the eastern premises boundary (400m from abattoir and wastewater infrastructure) with a tributary running through the north-east corner of the premises and a conservation category wetland area on the western boundary of the premises (<100m from wastewater ponds). *Controls*: Slaughter and processing of animals is undertaken within enclosed buildings with all wastewaters directed to the WWTS for processing. Lairages have bunded concrete bases to contain liquid animal wastes and wastewaters. Wastewater	Application supporting documentation L6001/1989/14 Environmental Assessment Report

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		treatment infrastructure has therefore historically been the most likely source of contaminated wastewater seepage due to insufficient lining systems, high levels of built up sludge material and minimal solids screening or pre-treatment of wastewater prior to entering the ponds. Since the last licence reissue the licensee has undertaken maintenance and upgrades on the DAF unit (pre-treatment and secondary screening) and relining of the ponds with five of the six wastewater ponds now lined to achieve permeability of less than $1x10^{-9}$ m/s. Only the oxidation pond remains with a clay liner of unknown permeability. An established quarterly ambient groundwater monitoring program is in place at the abattoir with results reported to the Department annually. Ambient groundwater monitoring results do not exhibit any significant trends over the past five years. GQ1 and GQ2 may have been impacted by seepage however as they exhibit higher nutrient levels. GQ2 is immediately east of the wastewater treatment ponds and is likely to have been impacted by seepage from the ponds prior to relining. MB 1 is south west of the Turf Farm and is more likely to have been impacted by irrigation (refer to Appendix A). <u>Risk Assessment</u> *Consequence*: Minor *Likelihood:* Unlikely *Risk Rating:* Moderate <u>Regulatory Controls</u> Condition 3.4.1, has been included on the licence specifying ambient groundwater monitoring requirements. The condition replicates the requirements of previous licence condition 18 relating to ambient groundwater monitoring. Monitoring bore GQ2 is the most likely to be impacted by seepage of wastewater from the wastewater treatment ponds and is appropriately located to detect potential impacts associated with seepage	

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		from this infrastructure. Residual Risk *Consequence:* Minor *Likelihood:* Unlikely *Risk Rating:* Moderate	
Improvements	L4.1.1	An improvement condition for the Licensee to submit an updated NIMP has been included on the licence. For justification of IR1 refer to DER's assessment and decision making details in Appendix A.	Application supporting documentation V&V Walsh Nutrient and Irrigation Management Plan 2011
Information	L5.1.1 – L5.1.4 L5.2.1 – L5.2.3 L5.3.1	**Records** Conditions 5.1.1 – 5.1.4 that form part of the licence template are included in this section of the licence relating to record keeping on the premises. **Reporting** Annual reporting requirements have been specified in condition 5.2.1 of the licence replacing the requirements of previous licence condition 24. Condition 5.2.2 has also been included to require the licensee to make an assessment of monitoring results against previous results and licence limits in order to detect changes which could indicate that the premises is impacting on the environment. As all water samples are required to be sent to a laboratory for analysis, condition 5.2.3 has also been included requiring the submission of original reports on request. **Notification** Condition 5.3.1 has been included on the licence to ensure that the CEO is notified of	Application supporting documentation Part V licence L6001/1989/14

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		any limit exceedances within the specified timeframe. Condition 2.2.2 specifies the relevant limits for emissions to land. Condition 5.3.1 also specifies notification requirements in the event calibration requirements in condition 3.1.3 cannot be met. The previous licence also contained notification requirements in condition 2 in the event of spills or leaks occurring from treated wastewater pipelines. These requirements have not been included in the reissued licence as they replicate the requirements of s72 of the Act.	
Licence Duration	N/A	The overall environmental risk of this premises is categorised as moderate due to the proximity of sensitive receptors and compliance history of the licensee. The Licence has been issued for a period of five years as this allows the Licensee time to update and implement a Nutrient and Irrigation Management Plan and assess whether nutrient loading due to irrigation is having an environmental impact.	NA

5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
10/08/2015	Application advertised in West Australian (or other relevant newspaper)	No comments received.	N/A
22/09/2015	Draft instrument referred to Department of Water for comment	Comments received 23/09/2015 1) Recommendations to address high phosphorous loading of the irrigation areas. 2) Recommend inclusion of TDS in ambient groundwater monitoring 3) Recommendation for wording of IR1.	1) High phosphorous loading of the irrigation areas will be addressed through annual compliance assessment activities. 2) TDS is included in the groundwater monitoring suite. 3) Minor wording change to IR1 incorporated.
25/09/2015	Proponent sent a copy of draft instrument	1) Comments received 29/09/2015General comments and clarifications on the licence and decision document. 2) Clarification of rendering process and odour management.	1) General comments and clarifications taken into account in final draft. 2) Rendering process and odour management descriptions modified in accordance with onsite practices.

6 Emissions and discharges risk assessment framework

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

Emissions to land including monitoring

The principal emissions of concern from the V & V Walsh Abattoir are emissions to land, surface water and the underlying aquifer via irrigation of treated wastewater with elevated nutrient levels. Groundwater on the premises is typically 3 to 5 m below the surface and predominantly flows in an easterly direction toward the Preston River, with subtle variations reflecting surface topography. Outcropping of groundwater can occur in low lying areas in the winter months. Soils comprise of sandy loams with a coffee rock basalt base.

Emission Description

Emission: Irrigation of treated wastewater to a 13ha turf farm and a 45ha on site irrigation area.

Impact: Discharge of treated wastewater with elevated nutrient levels to land via irrigation which may result in excessive nutrient loading of the land or eutrophication of surface water systems due to runoff. A conservation category wetland is located on the western premises boundary immediately adjacent to the turf farm irrigation area and the Preston River, also classified as a conservation category wetland area, is located approximately 100 m east of the turf farm. The on-site irrigation area covers a large portion of Lot 1 of the premises within irrigation occurring within up to 50m from the Preston River and its tributary running through the north east corner of the premises.

Table 1 below shows the loading rates to the two irrigation areas for nitrogen and phosphorous since 2010. Historically both nitrogen and phosphorous loading limits have been exceeded at the Turf Farm and irrigation area and this has been ongoing since 2004. This triggered the need for an Environmental Management Plan and Improvement Program for the premises which have been implemented through previous licence and works approval conditions. Improvements on site have resulted in a significant reduction in nutrient loading rates, in particular nitrogen, however phosphorous overloading is still occurring.

Table 1: Annual Irrigation Loading Rates

Turf Farm Loading Rates						
	Licence limits	**2010**	**2011**	**2012**	**2013**	**2014**
Irrigation Volume (kL)	NA	175948	234056	100640	94817	95023
Total Nitrogen (kg/ha/yr)	600	1143.5	1215	483.85	417	303.73
Total Phosphorus (kg/ha/yr)	180	269.2	509.8	205.15	193	176.47
On-Site Irrigation Area Loading Rates						
Irrigation Volume (kL)	NA	177886	39735	106204	115798	102190
Total Inorganic Nitrogen (kg/ha/yr)	180	156.7	110.8	147.51	152	64.64
Reactive Phosphorus (kg/ha/yr)	20	17.1	39.8	55.46	61.1	48.26

Controls: To reduce the nutrient levels in wastewater generated by activities on the premises, wastewater is treated via screening, removal of fats and solids through a DAF unit, and anaerobic, facultative and oxidation treatment through a series of six ponds prior to irrigation to the turf farm or on-site irrigation area. Recently the Licensee has also incorporated addition of biological additives (Bio-Tabs) to the WWTS to increase biological breakdown of nutrients. High strength wastewaters from the cattle lairage are removed from site for disposal at a licensed facility to reduce nutrient loads on the WWTS.

The WWTS has undergone a series of improvements since 2010 as part of the premises Environmental Management Plan and Improvement Program to address continued exceedance of specified nutrient loading limits in irrigation areas. The improvements are designed to reduce wastewater volumes and improve nutrient breakdown. They have included reducing raw water

usage and increasing treated wastewater usage to reduce irrigation volumes, maintenance and improvements to the DAF tank to optimise operation, desludging and relining of the majority of the wastewater treatment ponds with only the final oxidation pond remaining unlined, and introduction of aerators in the facultative ponds.

An established quarterly ambient ground and surface water monitoring program is in place for the abattoir with results reported to the Department annually. Ambient groundwater monitoring results do not exhibit any significant trends over the past five years. GQ1 and GQ2 do however exhibit higher than background nitrogen levels. GQ1 is located to the south west of the Turf Farm and higher nutrient levels may be the result of runoff or seepage from the Turf Farm. GQ2 exhibits the highest nitrogen levels however it is located immediately east of the wastewater treatment ponds so is more likely to have been impacted by seepage from this infrastructure. Ad hoc ambient surface water monitoring was conducted at two locations on the Preston River (north and south) in 2011 and 2012 but did not detect elevated nutrient levels in the river.

Irrigation is preferentially undertaken on the Turf Farm as it has a higher nutrient uptake capacity and has been established for the purpose of exporting nutrients from the facility. Irrigation of the on-site irrigation area is predominantly undertaken in winter months when the nutrient uptake capacity of the Turf Farm is reduced.

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

Regulatory Controls
Due to the close proximity of the irrigation areas to sensitive surface water receptors effective control and management of irrigation activities is required to ensure the risk of irrigation water discharging to surface water receptors is minimised. Condition 1.3.2 has been included on the licence to specify required management measures for irrigation to reduce the risk of runoff occurring from the irrigation areas and excessive nutrient application occurring. This condition replicates the requirements previous condition 15.

Control and monitoring of nutrient application rates is required to minimise the risk of nutrient overloading. Conditions 2.2.1 and 2.2.2 have been included on the licence to specify where irrigation activities can occur and set nutrient loading limits. The current nutrient loading limits for the Turf Farm have been retained and were determined based on the initial calculations for the nutrient uptake capacity of the turf, harvesting frequency and the soil type (siliceous medium grain soil) when the area was first established. The current nutrient loading limits for the on-site irrigation area have been retained and were determined based on the Department of Water, *Water Quality Protection Note 22: Irrigation with Nutrient-Rich Wastewater* (WQPN). The irrigation area is classified as Risk Category B in accordance with the WQPN. Condition 3.2.1 has been included on the licence to specify monitoring requirements for the volume and quality of water irrigated to land. The monitoring requirements replicate previous licence condition 18 with the addition of nitrogen speciation as this is the most significant nutrient in the irrigation water.

Despite a progressive reduction in nutrient application rates to the irrigation areas, nutrient loading limits continue to be exceeded. The Licensee submitted a Nutrient Irrigation Management Plan (NIMP) to the Department in 2011 however the plan was insufficient as it did not include management actions to ensure nutrient application rates comply with the licence limits. The plan has also not been updated following improvements to the WWTS. Previous versions of the licence included lysimeter monitoring of the Turf Farm. The purpose of the monitoring was to verify nutrient uptake capacity of the Turf Farm. This monitoring is more appropriate as part of the NIMP so has not been included in the reissued licence. Due to the 2011 NIMP not including management actions to manage nutrient application rates, improvements being made to the WWTS, and continued exceedance of nutrient loading limits, improvement condition IR1 has been added to the licence through condition 4.1.1 requiring the Licensee to submit a NIMP.

Condition 3.4.1 has been included on the licence to continue to monitor ambient groundwater and surface water quality to detect whether the irrigation of treated wastewater to land is potentially impacting on ground or surface waters. The condition replicates the requirements of previous licence condition 18. One additional existing bore (GQ4) has been added to the monitoring schedule as historic monitoring has not included any groundwater monitoring down hydraulic gradient from the Turf Farm. The bore location will enable detection of contamination in groundwater flowing toward the Preston River. Ambient monitoring of surface water on the Preston River tributary is required to monitor whether elevated nutrient levels are occurring as a result of irrigation of the on-site irrigation areas on either side of the tributary. Uncontaminated stormwater discharges from Premises are also directed to this tributary therefore ambient surface water monitoring will also detect if contaminants have entered the uncontaminated stormwater circuit.

The previous licence L6001/1989/14 included ambient surface water targets in condition 9. These have not been retained in the reissued licence in. The targets may be used as an internal management tool by the licensee to confirm uncontaminated stormwater discharges and on –site irrigation are not causing an impact on the surface water system.

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

Inclusion of an ambient groundwater monitoring program in the licence does not alter the risk assessment however will allow for early detection of contamination and implementation of mitigation measures if required.