



Licence Number	L5101/1981/11
Licence Holder	Ausvision Rural Services Pty Ltd (ACN106 075 763)
Registered business address	Unit 6, 78-84 Catalano Circuit CANNINGVALE WA 6155
Duration	17/01/2013 to 16/01/2033
Prescribed Premises	Category 55 - Livestock saleyard or holding pen: premises on which live animals are held pending their sale, shipment or slaughter
Premises	Amberley Livestock Holding Facility Being Lots 5,6 & 8 on Deposited Plan 227817 Certificates of Title: Lot 5 Volume 1597 Folio 482 Lot 6 Volume 1597 Folio 481 Lot 8 Volume 1100 Folio 123

This amended Licence is granted to the Licence Holder, subject to the following conditions, on 25 May 2017, by:

Date signed: 25 May 2017

Jonathan Bailes
A/Senior Manager – Industry Regulation (Process Industries)
an officer delegated under section 20 of the Environmental Protection Act 1986 (WA)

Conditions

Environmental compliance

1. The **Licence Holder** must comply with the **EP Act** and all regulations prescribed under the EP Act and applicable to the Premises, including:
 - (a) The duties of an occupier under s 61;
 - (b) The duty to notify the **CEO** of discharges of waste under s 72; and
 - (c) Not causing, or doing anything that is likely to cause, an offence under the **EP Act**

except where the **Licence Holder** does something in accordance with a **Condition** which expressly states that a defence under s 74A of the **EP Act** may be available.

Notification of Material Change

2. The **Licence Holder** must notify the **CEO** of any **Material Change** within 14 days of a **Material Change** occurring and such notification (which the **CEO** will make publicly available) must:
 - (a) be in writing;
 - (b) include details of the changes, including duration, infrastructure details (if any); and
 - (c) include risk analysis of the changes, including proposed controls to mitigate risks.

Nothing in this Condition constitutes a defence to offences under the **EP Act**.

3. The **Licence Holder** must provide to the **CEO** any additional information the **CEO** may reasonably require to assess the **Material Change** under **Condition 4** and in order for the **CEO** to determine if an amendment is required under the **EP Act**.
4. The **Licence Holder** must cease carrying out, or modify, a **Material Change** in the manner and at the time required by the **CEO** if:
 - (a) the **CEO** forms the view, acting reasonably, that the **Material Change** has or may have an unacceptable impact on public health, amenity or the environment; and
 - (b) the **CEO** has provided written notice (which the **CEO** will make publicly available) to the Licence Holder specifying the grounds for the **CEO's** views.

Nothing in this **Condition** prevents the Licence Holder subsequently submitting an amendment in relation to the **Material Change**.

Works

5. The **Licence Holder** must carry out the Works within the Premises in accordance with the requirements set out in Table 6 of Schedule 3 to this Licence.
6. The **Licence Holder** must locate the Works generally in accordance with the site maps in Schedule 1 to this licence.

7. Subject to **Condition 10**, at least 10 business days prior to the commencement of the Works, the **Licence Holder** must provide to the **CEO** engineering or building certification from a suitably qualified professional confirming that the detailed construction drawings and plans for the Works include each item of infrastructure or component of infrastructure specified in column 1 of Table 6 with the requirements specified in column 2 of Table 6.
8. Subject to **Condition 10**, on completion of the Works, the **Licence Holder** must provide to the CEO engineering or building certification from a suitably qualified professional confirming each item of infrastructure or component of infrastructure specified in column 1, with the requirements specified in column 2 of Table 6, have been constructed with no material defects.
9. The **Licence Holder** must not depart from the requirements specified in column 2 of Table 6 except:
 - (a) where such departure is minor in nature and does not materially change or affect the infrastructure;
 - (b) or where such departure improves the functionality of the infrastructure and does not increase risks to public health, public amenity or the environment; and all other conditions in this Licence are still satisfied.
10. If **Condition 9** applies, then the **Licence Holder** must provide the CEO with a list of departures which are certified as complying with **Condition 9** at the same times, and from the same professional, as the certifications required under **Conditions 7** and 8.

Infrastructure and Equipment

11. The **Licence Holder** must ensure that the infrastructure and equipment specified in column 1 and column 2 of Table 7 in Schedule 4 is maintained and operated in accordance with the requirements specified in column 3 of Table 7 in Schedule 4.
12. The **Licence Holder** must ensure that the infrastructure and equipment specified in column 1 and column 2 of Table 7 in Schedule 4 are maintained in good working order.

Specified Actions

13. The **Licence Holder** must ensure that the **Premises** does not hold more than;
 - (a) 900,000 animals in any **Annual Period**; and
 - (b) 120,000 animals at any one time.

Groundwater Monitoring and Reporting

14. The **Licence Holder** must install and commission groundwater monitoring bores that satisfy the requirements in Table 1 within 100 days of the amendment date.

Table 1: Groundwater monitoring bores installation requirements

Monitoring Bores	Location and Reference on Map 4 in Schedule 1	Description	Installation Requirements
Monitoring bore: MB1	Area 1	Down hydraulic gradient, east of the new wastewater storage pond	(a) Installed to meet the requirements of <i>Minimum Construction Requirements for Water Bores in Australia</i> (AIH 2012). (b) Sited in accordance with the Department of Water <i>Water Quality Protection Note 30 Groundwater Monitoring Bores</i> (DoW 2009). (c) Surveyed to allow the ground level (to Australian Height Datum) at each location to be accurately determined.
Monitoring bore: MB2	Area 2	Down hydraulic gradient of the eastern boundary of the intensive holding yards	
Monitoring bore: MB3	Area 3	Down hydraulic gradient of the western side of the southwestern line of holding yards	
Monitoring bore: MB4	Area 4	Within 20 metres of the current carcass pit	

15. The **Licence Holder** must provide to the **CEO** within 30 days after completion of the installation of bores required by **Condition** 14 a copy of the bore log information for each bore recorded at the time of the bore installation.
16. Pursuant to **Condition** 14, the **Licence Holder** must undertake groundwater monitoring at locations specified in column 1 of Table 2, for parameters specified in column 2 of Table 2 and in accordance with requirements specified in columns 3, 4, 5 and 6 of Table 2.

Table 2: Groundwater quality monitoring requirements

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Monitoring bores and reference on Map 4 in Schedule 1	Parameter	Units	Averaging period	Frequency	Sampling Method
MB1 MB2 MB3 MB4	Standing water level	m(AHD) mBGL	Measured at least 45 days apart	Quarterly commencing within 30 days of installing bores in accordance with Condition 15	-
	pH ¹	-	Spot sample, collected at least 5 months apart	Six monthly, commencing within 30 days of installing bores in accordance with Condition 15	AS/NZS 5667.11 , using low flow sampling
	Electrical conductivity ¹	µS/cm			
	Total nitrogen (TN)	mg/L			
	Nitrite plus nitrate nitrogen				
	Ammonia nitrogen				
	Total phosphorus (TP)				
	Reactive phosphorus as P				
Total dissolved solids (TDS)					

Note 1: In-field non-**NATA** accredited analysis permitted.

- 17.** The **Licence Holder** must ensure that all groundwater samples are submitted to and tested by a laboratory with current **NATA** accreditation for the parameters being measured unless indicated otherwise in this **Licence**.

Emissions

- 18.** The **Licence Holder** must not cause any **Emissions** from the Premises except for **General Emissions** described in column 1 of Table 3, subject to the exclusions, limitations, or requirements specified in column 2 of Table 3 below.

If the **Licence Holder** proves that it has acted in accordance with this **Condition**, it may be a defence under s 74A of the EP Act to proceedings for offences under the EP Act (including offences under section 56).

Table 3: Authorised Emissions Table

Column 1	Column 2
Emission Type	Exclusions/Limitations/Requirements
General Emissions	
<p>Emissions which:</p> <ul style="list-style-type: none"> • arise from the activities on the Premises through matters set out in, or incidental to the matters set out in, the General Description in Schedule 2; or • arise from a Material Change (except where Condition 4 applies). 	<p>Emissions excluded from General Emissions are:</p> <ul style="list-style-type: none"> • Unreasonable Emissions; or • emissions that result in, or are likely to result in, Pollution, Material Environmental Harm or Serious Environmental Harm; or • Discharges of Waste in circumstances likely to cause Pollution; or • emissions that result, or are likely to result in, the Discharge or abandonment of Waste in water to which the public has access; or • Emissions or Discharges which do not comply with an Approved Policy; or • Emissions or Discharges which do not comply with prescribed standard; or • Emissions or Discharges which do not comply with the conditions in an Implementation Agreement or Decision; or • Emissions or Discharges the subject of offences under regulations prescribed under the EP Act, including materials discharged under the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>.

Information

19. The **Licence Holder** must maintain accurate and auditable records in relation to:
- the calculation of fees payable in respect of this **Licence**; and
 - any **Material Change**.

20. The **Licence Holder** must record the number and details of any complaints received by the **Licence Holder** relating to the **Premises**, and any action taken by the **Licence Holder** in response to the complaint. Details of complaints must include:
- an accurate record of the concerns or issues raised, for example a copy of any written complaint or a written note of any verbal complaints made;
 - the name and contact details of the complainant, if provided by the complainant;
 - the date of the complaint; and
 - the details and dates of the actions taken by the **Licence Holder** in response to the complaints.
21. The **Licence Holder** must comply with a **CEO Request**, within 7 days from the date of the **CEO Request** or such other period specified in the **CEO Request**.
22. The **Licence Holder** must provide to the **CEO** within 30 days after the **Anniversary Date**, an **Annual Environmental Report** satisfying the requirements of Table 4 for the previous year.

Table 4: Annual Reporting Requirements

Condition	Requirements
13	<p>The report must contain:</p> <ul style="list-style-type: none"> the total number of animals held during the reporting Annual Period; the maximum number of animals held at any one time during the reporting Annual Period; and the number of animals held for each month in the reporting Annual Period including the starting date for animal arrivals and the average number of days the animals were held.
16	<p>The report must contain:</p> <ul style="list-style-type: none"> groundwater monitoring data in tabulated form including the sampling date; and an assessment and interpretation of the data including comparison to historical trends.
20	<p>The report must contain a summary of complaints records for the reporting Annual Period and any actions taken.</p>

23. The **Licence Holder** must provide to the **CEO** within 30 days after the **Anniversary Date**, an **Annual Audit Compliance Report** indicating the extent to which the **Licence Holder** has complied with the **Conditions** in this Licence for the **Annual Period**.

Definitions and Interpretation

Definitions

In this Licence, the following terms have the following meanings:

Anniversary Date means 30 June of each year.

Annual Audit Compliance Report means a report in a format approved by the **CEO** as presented by the **Licence Holder** or as specified by the **CEO** from time to time and published on the Department's website.

Annual Period means a 12 month period commencing from 1 July until 30 June in the following year.

AS/NZS 5667.1 means the Australian Standard AS/NZS 5667.1 Water quality - Sampling – Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples.

AS/NZS 5667.11 means the Australian Standard AS/NZS 5667.11 Water quality - Sampling – Guidance on sampling of groundwaters.

CEO for the purposes of notification means:

Chief Executive Officer
Department Div. 3 Pt. V EP Act
Locked Bag 33 Cloisters Square
Perth WA 6850
info@der.wa.gov.au

CEO Request means a request made by the **CEO** to the **Licence Holder** in writing, sent to the **Licence Holder's** address for notifications, as described at the front of this **Licence**, in relation to:

- (a) information, records or reports in relation to specific matters in connection with this **Licence** including in relation to compliance with any **Conditions** and the calculation of fees (whether or not a breach of condition or the EP Act is suspected); or
- (b) reporting, records or administrative matters:
 - (i) which apply to all **Licences** granted under the **EP Act**; or
 - (ii) which apply to specified categories of **Licences** within which this **Licence** falls.

Condition means a condition to which this **Licence** is subject under s 62 of the **EP Act**.

Department means the department established under s.35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Division 3 Part V of the *Environmental Protection Act 1986*.

Discharge has the same meaning given to that term under the **EP Act**.

Effluent means the liquid by-product stream comprising of wastewater, spilt or leaked drinking water, manure and waste feed.

Emission has the same meaning given to that term under the **EP Act**.

Environmental Harm has the same meaning given to that term under the **EP Act**.

EP Act means the *Environmental Protection Act 1986* (WA).

EP Regulations means the *Environmental Protection Regulations 1987* (WA).

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

General Description means the description of activities and operations carried out on the Premises as set out in Schedule 2 of this Licence.

Hardstand means a surface with a permeability of 10^{-9} metres/second or less.

Intensive holding yards means the yards most frequently used for the holding of sheep as defined by the boundary in Map 2 of Schedule 1 to this **Licence**.

Licence refers to this document, which evidences the grant of **Licence** by the **CEO** under s 57 of the EP Act, subject to the **Conditions**.

Licence Holder refers to the occupier of the premises being the person to whom this **Licence** has been granted, as specified at the front of this **Licence**.

Material Change means a change to the activities carried out on the **Premises** as described in the **General Description** set out in Schedule 2 and:

- (a) that may result in an increased risk to public health, amenity or the environment; and
- (b) includes the types of changes specified in Schedule 2; and
- (c) does not include the excluded changes specified in Schedule 2.

Material Environmental Harm has the same meaning given to that term under the **EP Act**.

mAHD means metres Australian Height Datum.

mBGL means metres below ground level.

NATA means National Association of Testing Authorities.

Pollution has the same meaning given to that term under the **EP Act**.

Premises refers to the premises to which this **Licence** applies, as specified at the front of this **Licence** and as shown on Map 1 in Schedule 1 to this **Licence**.

Serious Environmental Harm has the same meaning given to that term under the **EP Act**.

Unreasonable Emission has the same meaning given to that term under the **EP Act**.

Waste has the same meaning given to that term under the **EP Act**.

Interpretation

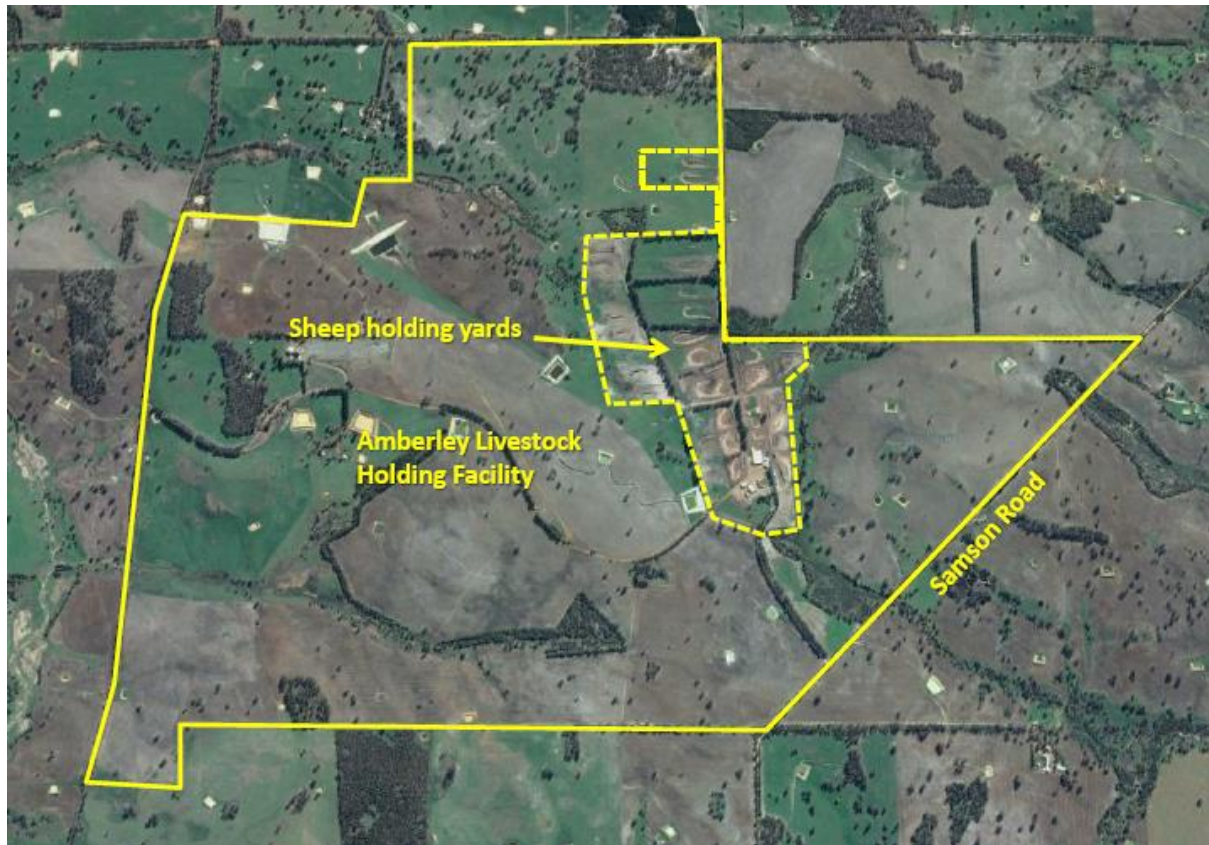
In this Licence:

- (a) the words 'including', 'includes' and 'include' will be read as if followed by the words 'without limitation';
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a **Condition**, each row in a table constitutes a separate **Condition**; and
- (d) any reference to an Australian or other standard, guideline or code of practice in this **Licence** means the version of the standard, guideline or code of practice in force at the time of granting of this **Licence** and includes any amendments to the standard, guideline or code of practice which may occur from time to time during the course of the **Licence**.

Schedule 1: Maps

Map 1: Premises boundary map

The **Premises** are shown in the map below. The solid yellow line depicts the boundary to the **Premises**. The dashed yellow line defines the boundary of the sheep holding yards within the **Premises**.



Map 2: Location of key infrastructure

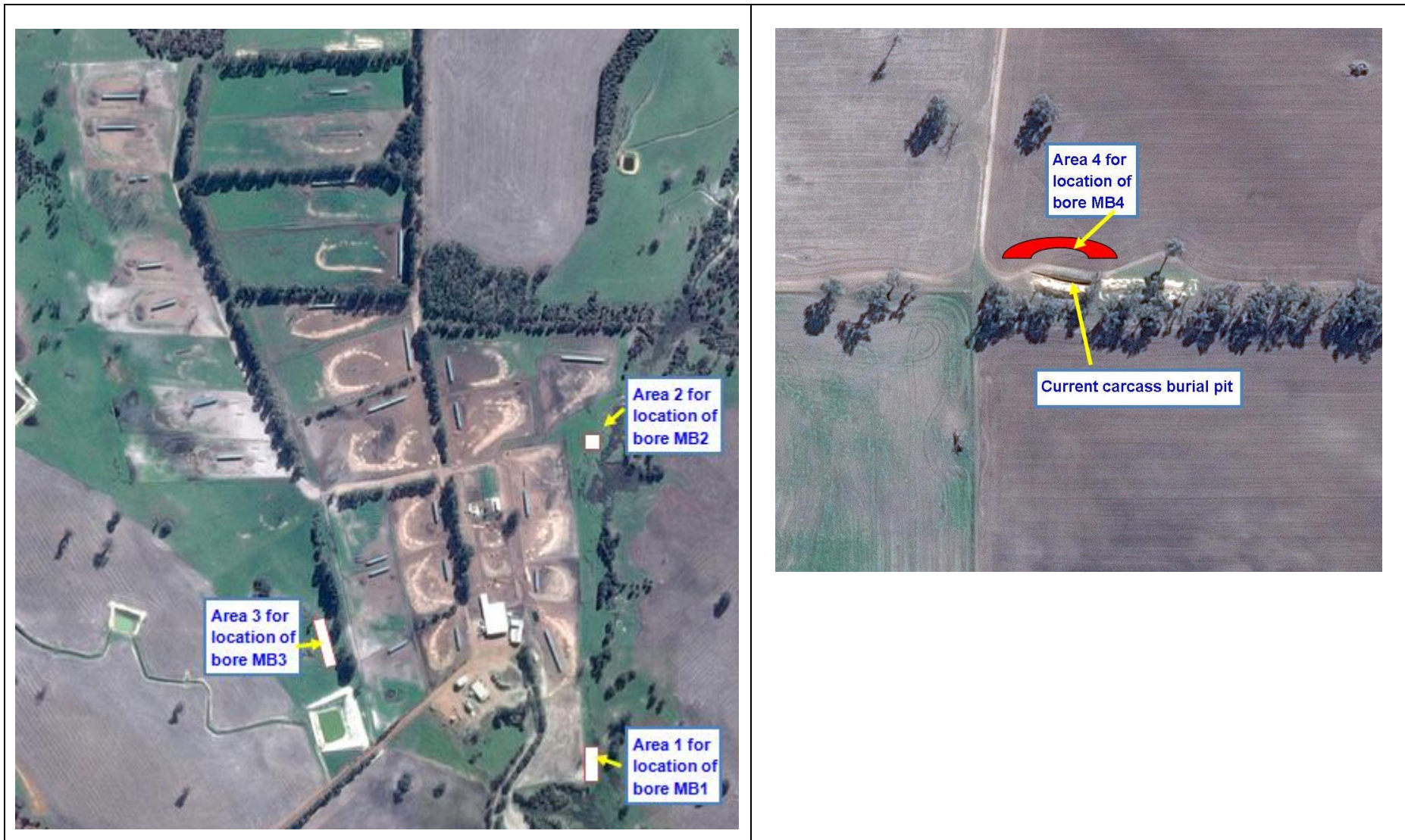


The dashed yellow line defines the boundary of the sheep holding yards.

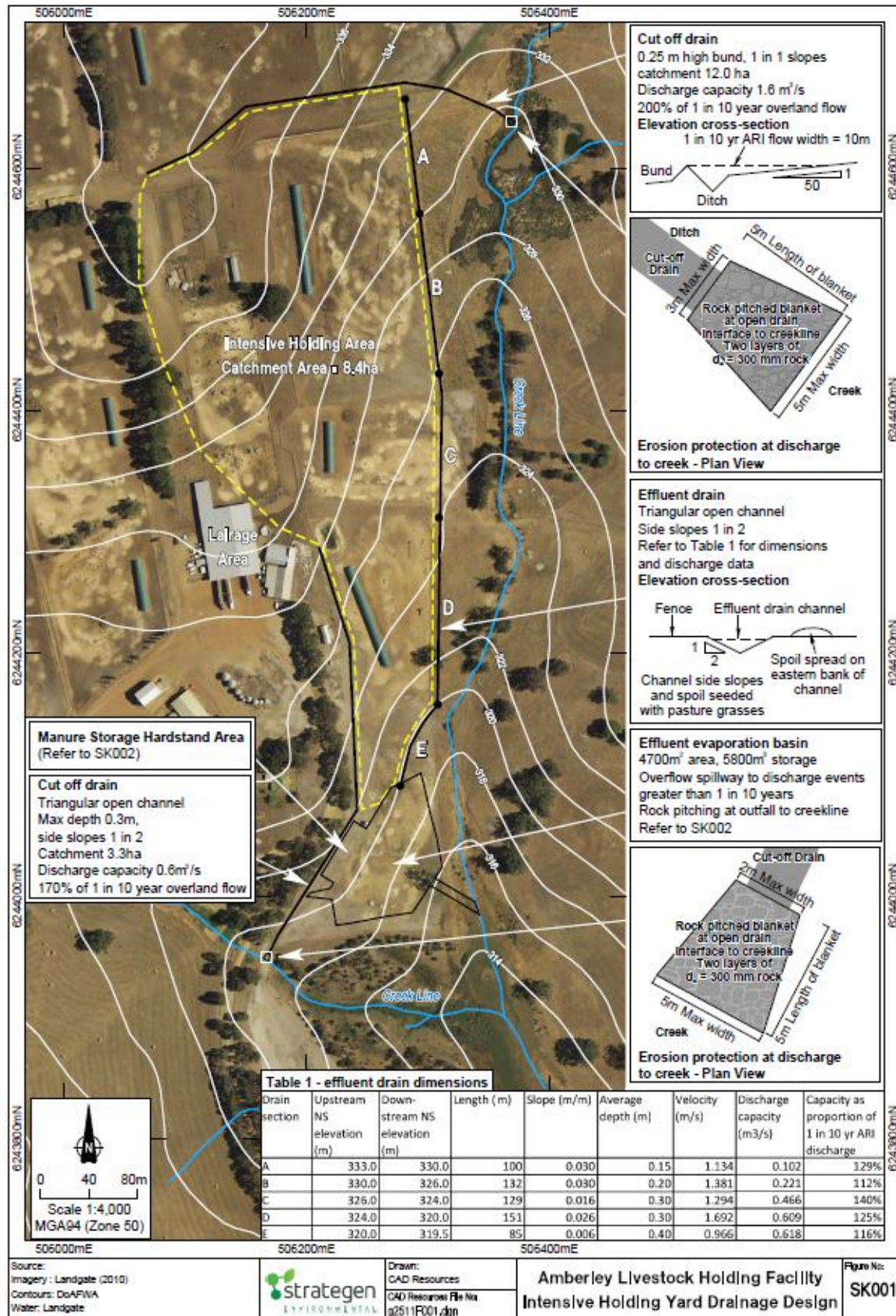
Map 3: Intensive holding yards and contaminated stormwater collection and storage



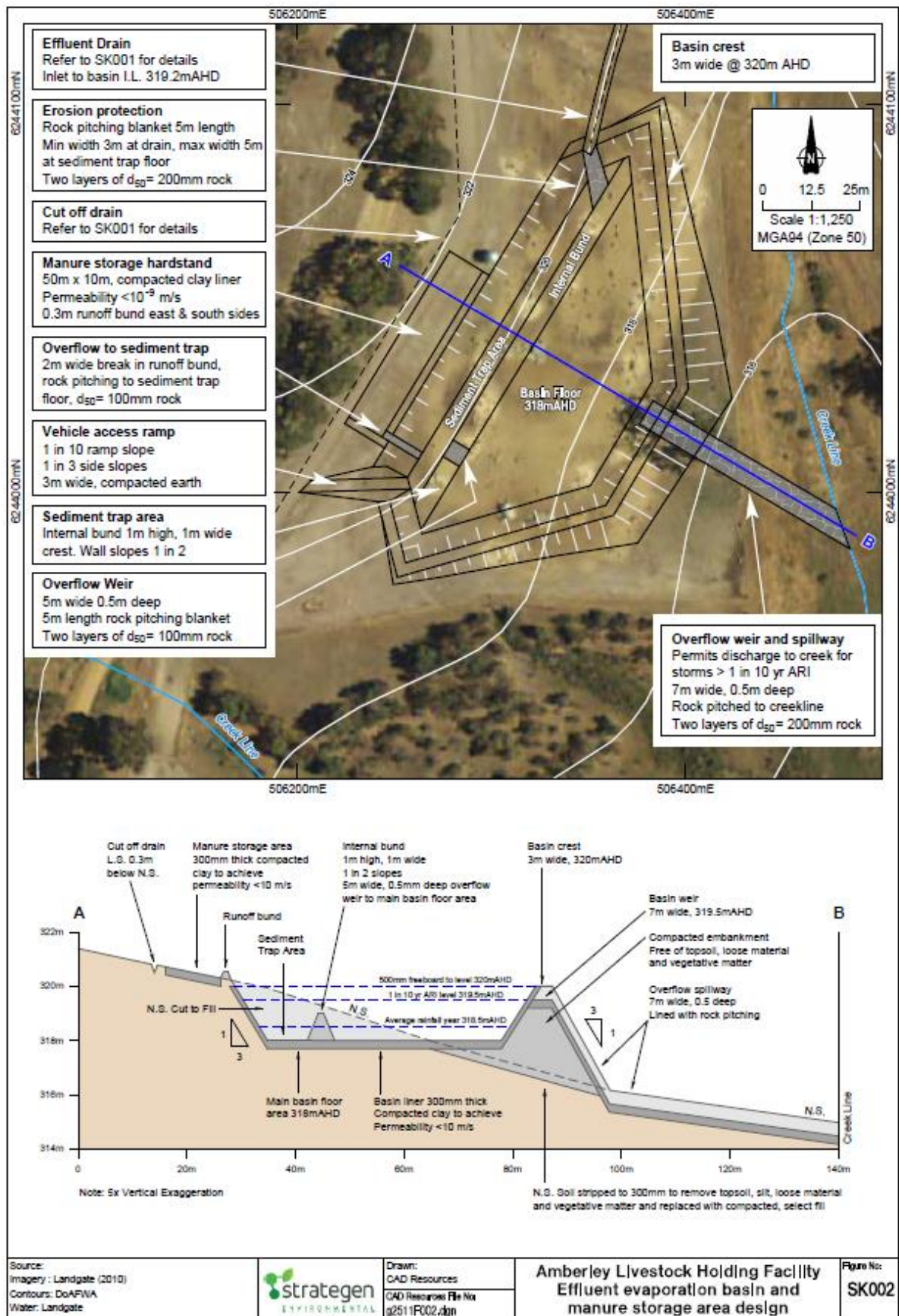
Map 4: Groundwater bores installation and monitoring locations



Map 5: Intensive holding yards and lairage drainage system design drawings



Map 6: Effluent storage / evaporation pond and manure storage area



Schedule 2: General Description

At the time of assessment, the following activities and operations were considered in the determination of the risk and related conditions for the **Premises**.

The **Licence Holder** is carrying out activities at the **Premises** which fall within the meaning of Prescribed **Premises** under the **EP Act**. The **Premises** constitute Category 55 **Premises** on which live animals are held pending their sale, shipment or slaughter.

The infrastructure and equipment situated on the **Premises** are detailed in **Table 5**.

Table 5: Infrastructure and equipment situated on the premises

	Infrastructure	Plan reference
1	Livestock Holding Facility Existing Infrastructure:	Map 2 Schedule 1 Map 3 Schedule 1
	Lairage yard, roofed with open sides and sloping concrete floor, 3800m ²	
	Holding Yards occupying 89 hectares in total, divided into: <ul style="list-style-type: none"> i. Intensive holding yards area; and ii. Remainder of holding yards, including two quarantine yards north of the main holding yard area 	
	Seven stock watering dams and one extraction bore ('Main bore')	
	Wastewater storage pond. To be decommissioned following construction of the new effluent drainage system and storage/evaporation pond	
	Manure storage area adjacent to the air strip. To be decommissioned subject to installation of a new manure stockpile hardstand	
	Carcass burial pit – 20m long x 3m wide x 7m depth	
	Additional related infrastructure includes: a shearing shed, a pellet/feed shed, a concrete feed bunker, feed silos, four water tanks, a weighbridge and office, and two mobile 2,000 L diesel tanks stored on trailers in a bunded concrete hardstand	
	Livestock Holding Facility Proposed Infrastructure:	Map 3 Schedule 1 Map 5 Schedule 1 Map 6 Schedule 1
Intensive holding yards drainage system		
Wastewater (effluent) storage/evaporation pond		
Manure storage area		
	4 x groundwater monitoring bores	Map 4 Schedule 1

Site layout

The infrastructure and equipment are set out on the **Premises** in accordance with the site layout specified on Maps 2, 3, 4, 5 and 6 in Schedule 1.

Examples of Material Change

- changes to the control or ownership of the infrastructure or equipment within the premises; and
- changes to the site layout of infrastructure and equipment specified on the plans in Schedule 1.

Non-Material Change

Improvements or additions to, or replacement of, infrastructure and equipment that do not increase the risk of emissions and discharges.

Schedule 3: Works

The Works to be carried out on the Premises are specified in Table 6 below.

Table 6: Works Specifications

Item	Works	Requirements (siting, design and construction specifications / drawings)
1	All infrastructure	All livestock holding facility infrastructure must be located at least 50m from any watercourse. Distance from infrastructure must be calculated from the relevant holding yard or infrastructure fence boundary.
2	Intensive holding yards drainage system	Construction of a clay-lined drainage system to achieve a permeability of less than 1×10^{-9} metres per second for the capture and conveyance of stormwater runoff generated from the intensive holding yard area and lairage to the wastewater (effluent) storage/evaporation pond. <ul style="list-style-type: none"> • Located and designed as defined in Premises Map 5 in Schedule 1 • Sediment trap and rock wall to filter out organic matter prior to entering the pond installed and located as per design drawings in Map 5 in Schedule 1
3	Wastewater storage/evaporation pond	Construction of a 300mm compacted, clay lined pond to achieve a permeability of less than 1×10^{-9} metres per second for the storage and evaporation of wastewater collected from a 8.4 hectare catchment area, including capacity to contain a 1 in 10-year storm event. <ul style="list-style-type: none"> • Total volumetric storage capacity of 4,700m³ (5,800m³ including freeboard) • Installed and located such that all wastewater collected within the intensive holding yards drainage system flows to the storage/evaporation pond as per design specifications in Maps 5 and 6 in Schedule 1. • Water level survey marker installed to enable determination of freeboard
4	Manure Storage Area	Construction of a clay lined, bunded manure storage area to achieve a permeability of less than 1×10^{-9} metres per second for the temporary storage of manure collected from holding yard operations and sludge periodically removed from the wastewater storage/evaporation pond. <ul style="list-style-type: none"> • Designed to store up to 4,000 tonnes of solid waste at any one time • Designed and constructed to ensure that all leachate generated within the storage area drains to the wastewater storage/evaporation pond as per design specifications in Map 6 in Schedule 1 • Designed to withstand vehicle and machinery impacts • Dimensions: 50 metres long by 10 metres wide • Located as defined in Premises Map 3 in Schedule 1

Schedule 4: Infrastructure and Equipment

Table 7: Specified Infrastructure and equipment controls

Column 1	Column 2	Column 3	Column 4
Site infrastructure	Description	Operation details	Reference to Premises Map (Schedule 1)
Intensive holding yards including the contaminated stormwater drainage system	<p>Seven earth-based, fenced off holding yards immediately north and east of the lairage.</p> <p>Bunded stormwater drainage system (permeability less than 10⁻⁹ metres/second) designed to capture and convey all stormwater runoff from the intensive holding yard area to the wastewater storage pond.</p>	<p>Manure must be cleaned out and removed from the yards to the manure storage area at least quarterly.</p> <p>Uncontaminated stormwater must be prevented from entering the yards.</p> <p>Sediment traps within the drainage system must be inspected at least monthly and after all significant rainfall events and maintained to prevent leakage and spills.</p> <p>Deceased animals must be removed within 24 hours of their death and disposed of in the carcass burial pit.</p> <p>The yards must be inspected before and after each holding event to identify any additional requirements for cleaning and maintenance.</p> <p>Fencing must be maintained so as to prevent sheep from gaining access to the vegetated creek line buffer east of the intensive holding yards.</p>	Map 3
All other holding yards additional to the defined intensive holding yards area	26 combined earth and pasture based, fenced individual holding yards occupying an estimated total area of 80hectares.	<p>Manure must be cleaned out and removed from the yards to the manure storage area at least quarterly.</p> <p>Uncontaminated stormwater must be prevented from entering the yards.</p> <p>Deceased animals must be removed within 24 hours of their death and disposed of in the carcass burial pit.</p> <p>The yards must be inspected before and after each holding event to identify any additional requirements for cleaning and maintenance.</p>	Map 2

Column 1	Column 2	Column 3	Column 4
Site infrastructure	Description	Operation details	Reference to Premises Map (Schedule 1)
Lairage	<p>Roofed with open sides and a sloping concrete floor. Floor area is 3800 square metres.</p> <p>Concrete apron / bund around the perimeter.</p> <p>Designed to direct any contaminated runoff to the wastewater storage pond.</p>	<p>Manure must be cleaned out and removed to the manure storage area following each holding event.</p> <p>Uncontaminated stormwater must be prevented from entering the lairage.</p>	Maps 2 and 3
Wastewater storage pond	<p>A clay lined pond engineered to achieve permeability less than 10^{-9} metres/second. Designed to receive and store contaminated wastewater runoff from the intensive holding yard area and lairage.</p> <p>Holding capacity of 5,800m³, including freeboard.</p> <p>Survey marker installed on the pond to enable determination of the freeboard.</p>	<p>The pond must be inspected at least monthly, and immediately following a rainfall event, to assess the pond freeboard and any build-up of solid waste.</p> <p>A minimum freeboard of 500mm must be maintained.</p> <p>Sludge accumulated at the base of the pond must be removed and transferred to the manure storage area at least annually.</p> <p>The pond surface must be kept free of floating matter or debris.</p> <p>Vegetation must be prevented from growing on inner pond embankments or becoming rooted within the pond base or accumulated sludge.</p>	Map 3

Column 1	Column 2	Column 3	Column 4
Site infrastructure	Description	Operation details	Reference to Premises Map (Schedule 1)
Manure storage area	<p>A clay lined and bunded area (50 metres by 10 metres) engineered to achieve permeability less than 10^{-9} metres/second.</p> <p>Designed for the temporary storage of solid manure wastes collected from holding yards or the lairage or to store sludge removed from the wastewater storage pond, prior to disposal by spreading to land.</p> <p>Design capacity is 4,000 tonnes at any one time.</p>	<p>The volume of manure or pond sludge stored within the manure storage area must not exceed the design capacity of 4,000 tonnes at any one time.</p> <p>The area must be inspected at least monthly, and immediately inspected following a rainfall event, to assess for any spills or leakage.</p> <p>Any leachate generated within the manure storage area must drain to the wastewater storage pond.</p> <p>Containment bunds must be maintained to prevent any leaks or spills of leachate.</p> <p>Pond sludge placed on the manure storage area must be allowed to dry out prior to disposal by spreading to land.</p>	Map 3
Carcass burial pit	<p>A pit (Dimensions: 20 metres by 3 metres by 7 metres depth) excavated into the in-situ clay based soil with a tested permeability less than 10^{-9} metres/second.</p>	<p>The pit base is to have a separation to the seasonal high groundwater level of at least 2 metres.</p> <p>Must be located at least 100 metres away from any well, abstraction bore or watercourse.</p> <p>Carcasses must be covered by a minimum of 200mm cover material after each holding event to ensure all deceased animals are fully covered.</p> <p>The perimeter of the pit must be bunded to prevent stormwater runoff from entering the pit.</p>	Maps 2 and 4



Application for Licence Amendment

Part V, Division 3, *Environmental Protection Act 1986*

Licence Holder:	Ausvision Rural Services Pty Ltd
ACN:	106 075 763
Licence Number:	L5101/1981/11
File Number:	DEC6610
Premises:	Amberley Livestock Holding Facility Lots 5, 6 & 8 on Deposited Plan 227817 Certificate of Title: Lot 5 Volume 1597 Folio 482 Lot 6 Volume 1597 Folio 481 Lot 8 Volume 1100 Folio 123
Date of report:	Thursday, 25 May 2017
Status of Report	Final

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Definitions of terms and acronyms

Term	Definition
AACR	Annual Audit Compliance Report
AER	Annual Environmental Report
Application	the licence amendment application submitted to DER by Ausvision Rural Services Pty Ltd consisting of the reference documents Ausvision Rural Services 2016a, Ausvision Rural Services 2016b, Ausvision Rural Services 2016c, Ausvision Rural Services 2016d and Ausvision Rural Services 2017a in Appendix 1
BoM	Bureau of Meteorology
Category	as used in Schedule 1 of the <i>Environmental Protection Regulations 1987</i>
CEO	for the purposes of notification means: Chief Executive Officer Department Div. 3 Pt. V EP Act Locked Bag 33 Cloisters Square Perth WA 6850 info@der.wa.gov.au
DAFWA	Department of Agriculture and Food Western Australia
Decision Report	this document
DEC	Department of Environment and Conservation (a predecessor of DER)
Delegated Officer	An officer under section 20 of the EP Act
DER	Department of Environment Regulation
DoA	Department of Agriculture
DoW	Department of Water
EP Act	means the <i>Environmental Protection Act 1986</i>
EP Regulations	means the <i>Environmental Protection Regulations 1987</i>
Existing Licence	means the Licence (L5101/1981/11) currently in force
Freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point

Term	Definition
GIS	Geographical Information Software
Hardstand	means a surface with a permeability of 10 ⁻⁹ metres per second or less
ICMS	Incident and Complaints Management System
Licence Holder	Ausvision Rural Services Pty Ltd
ILS	Industry Licensing System
mAHD	metres Australian Height Datum
mg/L	milligrammes per litre
Noise	unwanted sound and is defined in the EP Act to include vibration of any frequency, whether transmitted through air or any other physical medium
Noise Regulations	means the <i>Environmental Protection (Noise) Regulations 1997</i>
Occupier	is defined in the EP Act to mean a person who is in occupation or control of a premises, or part of a premises, whether or not that person is the owner of the premises or part of the premises
PDWSA	Proclaimed Drinking Water Source Area
Premises	Amberley Livestock Holding Facility
Prescribed Premises	Premises prescribed under Schedule 1 to the EP Regulations.
Primary Activities	is defined in DER's <i>Guidance Statement: Risk Assessments</i> to include the primary activities which fall within the description of the category of prescribed premises in Schedule 1 to the EP Regulations.
RIWI Act	means Rights in Water and Irrigation Act 1914
WIN	Water Information Network

1. Purpose and scope of assessment

An **application** to amend Licence L5101/1981/11 was received from Ausvision Rural Services Pty Ltd on 5 August 2016 for the Amberley Livestock Holding Facility (the **Premises**). The **existing licence** is for **Category 55**: Livestock saleyard or holding pen and **Category 23**: Animal feed manufacturing activities undertaken at Lots 5, 6 and 8 on Deposited Plan 227817 in Jingalup, Western Australia.

The **Licence Holder** requested amendments are to:

- increase the maximum throughput to 900,000 animals per year;
- allow a maximum of 120,000 sheep to be held at any one time;
- remove the Category 23 feed mill from the Licence;
- include / allow for spreading manure onto pasture or cropping areas; and
- develop a waste management plan

The application also includes proposed works associated with managing potentially contaminated stormwater and upgrading solid waste handling and storage facilities.

The scope of this assessment is the proposed works and a Licence review to reassess the risks of emissions to the environment, public health, and amenity from the primary activity on the Premises.

2. Background

Licence L5101/1981/11 was granted on 17 January 2013. The premises have been operated by the Licence Holder since February 2006, who also hold a National Licence for the livestock holding facility as a registered premise for an export quarantine depot. The facility is used for holding sheep, usually from three to eight days, prior to road transport to Fremantle Port and subsequent export.

The licence issued on 7 January 2005 (L5101/1981/9) allowed for 300,000 animals per year to be held in the holding yards. This was increased through a licence amendment in January 2007 to allow a nominated maximum throughput of 900,000 animals per year. The increased animal throughput was granted with the provision that upgrade works identified in the Environmental Management Plan (Strategen, July 2006) would be implemented at the premises. A full premises risk review was not conducted at that time.

The licence renewal and review process undertaken in 2012 resulted in the reduction of the maximum animal throughput down to 50,000 animals per year (L5101/1981/11 issued on 17 January 2013). The Delegated Officer did not provide justification for this reduction at the time and it is assumed to be an error since it was inconsistent with the category 55 throughput for the holding facility at that time.

The Licence Holder has been consulting with **DER** since September 2014 regarding a licence amendment to correct and increase the maximum throughput, responding to requests by DER to update the Environmental Management Plan to include the increased animal throughput and give consideration to any further premises infrastructure upgrades required to manage the risks associated with the generation and storage of potentially contaminated run-off from the holding yards and lairage, and the management and storage of solid wastes including carcasses and manure.

The current licence includes Category 23: Animal Feed Manufacturing with a nominated throughput of less than 2,000 tonnes per year. However, the Pellet Manufacturing Plant located within Lot 6 of the Premises has not been operational for over 10 years. The licence amendment application includes a request to remove this prescribed premise activity from the licence.

Table 1 describes the premise category applicable to the Premises.

Table 1: Prescribed Premises Category

Classification of Premises	Description	Throughput applied for in application
55	Livestock saleyard or holding pen: premises on which live animals are held pending their sale, shipment or slaughter.	900 000 animals per year

3. Overview of Amberley Livestock Holding Facility

3.1 Infrastructure

The existing and proposed infrastructure at the Premises as it relates to Category 55 activities is detailed in Table 2 and in Figure 1 under operational aspects.

Table 2: Amberley Livestock Holding Facility premises Category 55 infrastructure

Existing Infrastructure: Prescribed Activity Category 55	
Infrastructure details included in this table are taken from the licence amendment application supporting document (Environmental Management Plan) prepared by Strategen Environmental Consultants Pty Ltd, 4 August 2016 and additional information provided by the applicant on 24 April 2017.	
1	Lairage yard, roofed with open sides and sloping concrete floor, 3800m ²
2	Holding yards – Total of 30 fenced holding yards, occupying approximately 89ha in total .
3	Seven stock watering dams and one extraction bore
4	Effluent storage pond. Approximate capacity 800m ³ . To be decommissioned following construction of the new effluent drainage system and storage/evaporation pond
5	Manure stockpile/storage area – located adjacent to the airstrip. To be decommissioned subject to installation of a new manure stockpile hardstand
6	Carcass burial pit – excavated to 7 metres depth into naturally occurring clay with a tested permeability less than 10 ⁻⁹ m/s.
7	Additional related infrastructure includes: a shearing shed, a pellet/feed shed, a concrete feed bunker, feed silos, four water tanks, a weighbridge and office, and two 2,000 L diesel tanks stored on trailers in a bunded concrete hardstand to enable mobile re-fueling across the site.
Proposed Infrastructure: Prescribed Activity Category 55	
1	Effluent storage/evaporation pond – Clay lined and engineered to achieve a permeability of less than 10 ⁻⁹ m/s and with a holding capacity of 4,700m ³ . Location of proposed new pond is detailed in Figure 2.
2	Effluent drainage system to capture effluent / stormwater runoff from the outer perimeter of the lairage yard and the intensive animal holding area as detailed in Figure 2. Drains are clay lined and engineered to achieve a permeability of less than 10 ⁻⁹ m/s surveyed to gravity flow to the effluent evaporation pond
3	Manure stockpile hardstand – a 50m by 10m bunded and compacted surface, draining to the evaporation pond. Location is detailed in Figure 2.

3.2 Operational aspects

The Premises normally operates between the hours of 6am and 6pm, seven days per week with three to four employees permanently based on site. Sheep are offloaded from trucks at

the lairage yard, where they are temporarily held prior to being transferred to holding yards.

The Licence Holder estimates that the average number of sheep held at any one time varies from approximately 40 000 to 60 000, with the requested maximum number of sheep to be held at any one time being 120 000. The facility is expected to hold between 70 000 to 120 000 sheep approximately eight to fifteen times per year.

The receipt of sheep for an export shipment generally takes three to four days, after which the majority of sheep are received and held for three to seven days. Holding patterns vary based on seasonal variance and commercial opportunities. Sheep are then transferred from the holding yards back to the lairage yard and are loaded onto trucks for transport off site. Load out occurs over one to three days with operating hours sometimes extended from 4am to 6pm to ensure trucks reach the wharf within operating hours.

The majority of the estimated 89-hectare holding yard area is subject to low occupancy by sheep and includes two quarantine holding yards to the north. The more intensive holding area is noted as being the yards to the immediate north and east of the lairage yard as shown in Figure 1 below, occupying an estimated area of 8.4 hectares. These yards have a maximum holding capacity of 30,000 sheep at any one time. At this maximum holding density, sheep would only be held in the intensive area for a maximum of 24 to 48 hours during incoming and load-out operations. Intensive holding events are reduced and avoided at wet times of the year. Between shipments the holding yards are rested or rotated with small numbers of remaining stock.

Each yard contains two water troughs connected to a water supply line. Stock water is sourced from seven dams on the premises and can be supplemented by mixing with groundwater supplied by a single production bore. The sheep diet consists of hay and a complete ration pellet, the pellet feed being sourced from an external supplier.

Daily vehicle movements to and from the site include staff vehicles, tractors, and feed trucks, in addition to sheep transport trucks. Sheep transport trucks have a capacity of approximately 600 head per truck and in high flow, maximum holding conditions up to five trucks per hour would potentially either deliver or remove sheep. However, truck movements are generally more spread out during animal delivery periods with an average of one to two trucks per hour.

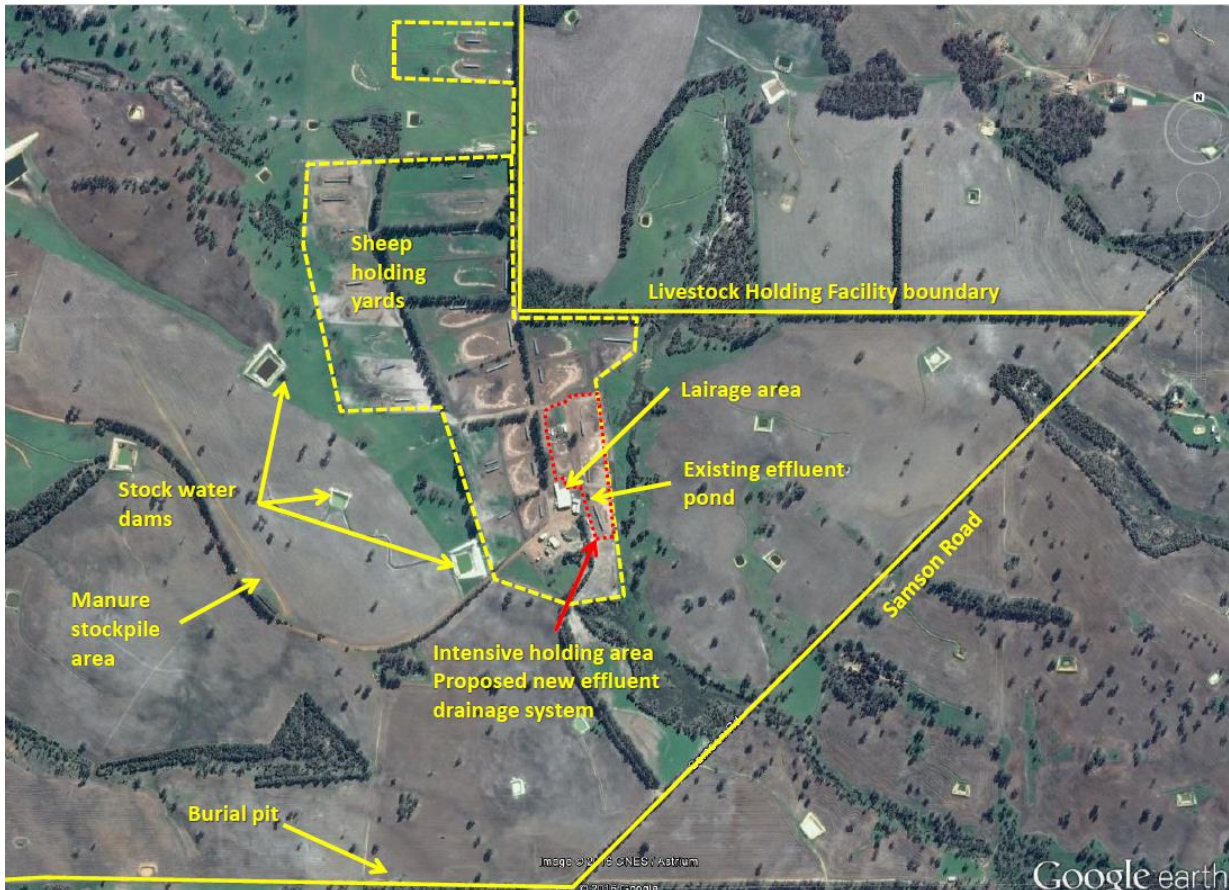


Figure 1: Location of key infrastructure

(Note: The dashed yellow line defines the boundary of all the holding yards)

3.2.1 Solid and Liquid Waste Management

The lairage yard is fully covered and has a sloping concrete floor which directs runoff to a drainage system currently directing waste to the existing adjacent storage pond. Gutters collect and direct stormwater roof runoff to nearby water storage tanks. Solid waste (i.e. manure) is regularly collected and removed from the lairage floor using a bobcat and hand sweeping. Concrete kerbing and bunding around the lairage yard reduces the potential for uncontrolled runoff of potentially contaminated stormwater.

The sheep holding yard surfaces have either a natural earth base, or in some areas are pastured. The more intensively used yards tend to be earthen based with the accumulated and trampled manure forming a crust on the surface, reducing the potential for surface erosion and infiltration of contaminated surface water. The holding yards are cleaned twice yearly, or more frequently as required.

Manure and other surface material collected from the lairage and holding yards is currently temporarily stored in an area adjacent to the airstrip prior to being spread on surrounding agricultural land, typically before the onset of winter rains. There is no bunding or runoff drainage infrastructure in place with the current manure storage area. The licence amendment includes a proposal to relocate and upgrade the manure storage area by constructing a new, bunded manure hardstand which will drain runoff to the new evaporation pond.

A new effluent drainage system and evaporation pond are proposed to be constructed to capture and store effluent and rainfall runoff from the lairage area and the intensive holding area as defined in Figure 2 below. Currently, all wastewater (effluent / contaminated stormwater) originating from the lairage and nearby holding yards A and B only, is captured and directed to the existing storage pond.



Figure 2: Location of intensive holding area and proposed effluent drainage system and evaporation dam

The new drainage system and pond infrastructure is intended to prevent contaminated stormwater runoff from reaching the intermittent creek located approximately 50 metres east of the intensive holding yards. The existing and proposed storage ponds are designed to maintain a minimum 500mm freeboard to mitigate potential overtopping and wastewater discharge to the environment.

3.2.2 Carcass Management

The sheep holding yards are cleared of deceased animal carcasses daily to reduce the potential for disease to spread. All deceased animals are placed into the burial pit, currently located on the southern border of the premises (Refer to Figure 1). The pit was excavated to a depth of 8 metres into the natural clay strata found below the top 0.5 to 1.0m soil layer. Laboratory testing results of this clay show a permeability of 7.4×10^{-10} m/s. The Licence Holder states that the bottom of the pit is above groundwater at this location, noting that the depth to groundwater is greater than 5 metres in this area. The carcass burial pit is bunded to prevent the ingress of stormwater runoff from the surrounding elevated area.

The Licence Holder proposes to cover carcasses with a minimum of 200mm of excavated soil after each holding event. The pit will eventually be filled with carcasses to a depth of 0.5m below the top of the clay layer, then decommissioned by capping with 0.3m of clay and finally

0.5m of topsoil to form a mound above ground level. A new burial pit would then be constructed at a suitable location.

3.2.3 Existing activities on the premises not covered under this assessment

The premises includes an existing Pellet Manufacturing Plant, located within Lot 6, which has not been operational for at least the last ten years, but has been retained as a prescribed premise activity on licence renewals to date. This decision report does not consider any emissions related to the Pellet Manufacturing Plant as it remains non - operational and the associated Category 23: Animal feed manufacturing is to be removed as part of the requested licence amendment.

Separate to the holding yards, other paddocks within the premises boundary are used for cattle grazing and hay production. These activities are not directly associated with the primary activity and are therefore not covered under this assessment.

4. Legislative context

4.1 Planning approvals

4.1.1 Planning approvals

The licence amendment application was referred to the Shire of Kojonup on 24 August 2016 for comment. The Shire of Kojonup responded on 23 September 2016 noting that the Licence Holder had not applied for development approval for any changes to their operations.

The Licence Holder subsequently applied for and obtained Shire of Kojonup Approval (Ref:A919) on 14 February 2017 to build the new effluent evaporation pond.

4.2 Part V of the EP Act

4.2.1 Guidance Statements

The overarching legislative framework of this assessment is the EP Act and EP Regulations.

DER Guidance Statements which inform this assessment are:

- *Guidance Statement: Regulatory Principles (July 2015)*
- *Guidance Statement: Setting Conditions (October 2015)*
- *Guidance Statement: Land Use Planning (October 2015)*
- *Guidance Statement: Licence Duration (November 2015)*
- *Guidance Statement: Publication of Annual Audit Compliance Reports (May 2016)*
- *Guidance Statement: Decision Making (November 2016)*
- *Guidance Statement: Risk Assessments (November 2016)*
- *Guidance Statement: Environmental Siting (November 2016)*

4.2.2 Licence transfer, renewals and amendments

A summary of the licence changes since the licence renewal in January 2005 and the transfer of the licence to Ausvision Rural Services Pty Ltd in February 2006 is provided in Table 3.

Table 3: Licence transfer, renewals and amendments

Instrument	Issued	Description
L5101/1981/9	7 January 2005	Licence renewal to previous Licence Holder, Kojonup Farm Pty Ltd.
	6 February 2006	Transfer to Ausvision Rural Services Pty Ltd.
	18 January 2007	Amendment to increase animal throughput from 300 000 to 900 000 animals per year.
L5101/1981/10	17 January 2008	Licence renewal.
L5101/1981/11	17 January 2013	Licence renewal. Nominated throughput for sheep held reduced to not more than 50 000 animals per year.

4.2.3 Compliance History and Inspections

No prosecutions or statutory compliance or enforcement notices have been issued to the Licence Holder by DER under the EP Act, in relation to the premises.

There have been two compliance inspections conducted since the Licence was transferred to Ausvision Rural Services Pty Ltd in February 2006. Inspections were undertaken on 3 February 2012 and 4 May 2016 with no compliance issues identified at either inspection.

4.2.4 Annual Audit Compliance Reports (AACR)

The AACRs for the last three annual reporting periods were reviewed as part of this assessment. The findings are summarised as follows:

1. Reporting period 1 July 2013 to 30 June 2014: The Licence Holder reported that all conditions of the licence were complied with during the reporting period.
2. Reporting period 1 July 2014 to 30 June 2015: The Licence Holder reported that it had not complied with all licence conditions during the reporting period, noting that animal throughput was exceeded. The AACR also noted an administrative error with the licence number when it was reissued in 2013. No environmental impact was identified. The Licence Holder noted consultation with DER about the error in animal throughput reduction that had occurred with the licence renewal and the process in place to amend the licence.
3. Reporting period 1 July 2015 to 30 June 2016: The Licence Holder reported that it had not complied with all licence conditions during the reporting period, noting that animal throughput was exceeded. No environmental impact was identified. The Licence Holder noted the ongoing consultation with DER and updating of the Environmental Management Plan.

4.2.5 Annual Environmental Report (AER)

Condition 12 of the current Licence (L5101/1981/11) requires the Licence Holder to submit to the **CEO** of DER an Annual Environmental Report (AER). Reporting requirements include groundwater monitoring and data analysis, a summary of any complaints received, a summary of any issues raised by DER (e.g. arising from inspections), and reporting on any spills or discharges of environmentally hazardous substances.

It was noted and acknowledged by DER in the 2014 AER review that reporting requirements 12 (i) to (iii) of the AER regarding groundwater were incorrect, as there were no conditions in the licence identifying groundwater bores for sampling, analysis and assessment. However,

the Licence Holder has independently sampled and tested the main production bore and provided single sample results for two other bores within the premises.

The last three AERs were reviewed with no significant findings identified.

5. Consultation

DER referred the application to the Shire of Kojonup for comment on 24 August 2016. The Shire of Kojonup provided a written response by email on 23 September 2016 (see section 4.2.1).

A copy of the draft Decision Report and Revised Licence was provided to the Licence Holder for comment on 20 December 2016.

6. Location and siting

6.1 Siting context

The Premises is located approximately 3.5km northeast of the Jingalup town-site and 14km south-west of the town of Kojonup, in an area zoned rural under the Shire of Kojonup Town Planning Scheme No. 3.

The Premises occupies approximately 1000 ha of cleared agricultural land on three large lots bound by Samson Road, Kojonup – Frankland Road, Vanzuilecom Road and adjacent rural properties to the north east, north west and south.

The Licence Holder stated that the sheep holding yards occupy approximately 89 hectares, mostly located well within the premises lot boundaries. However, it is noted that a section of the northern yards are located on the boundary to an adjacent private rural property which includes a rural dwelling. The location of the holding yards within the premises boundary is indicated in Figure 3 below.

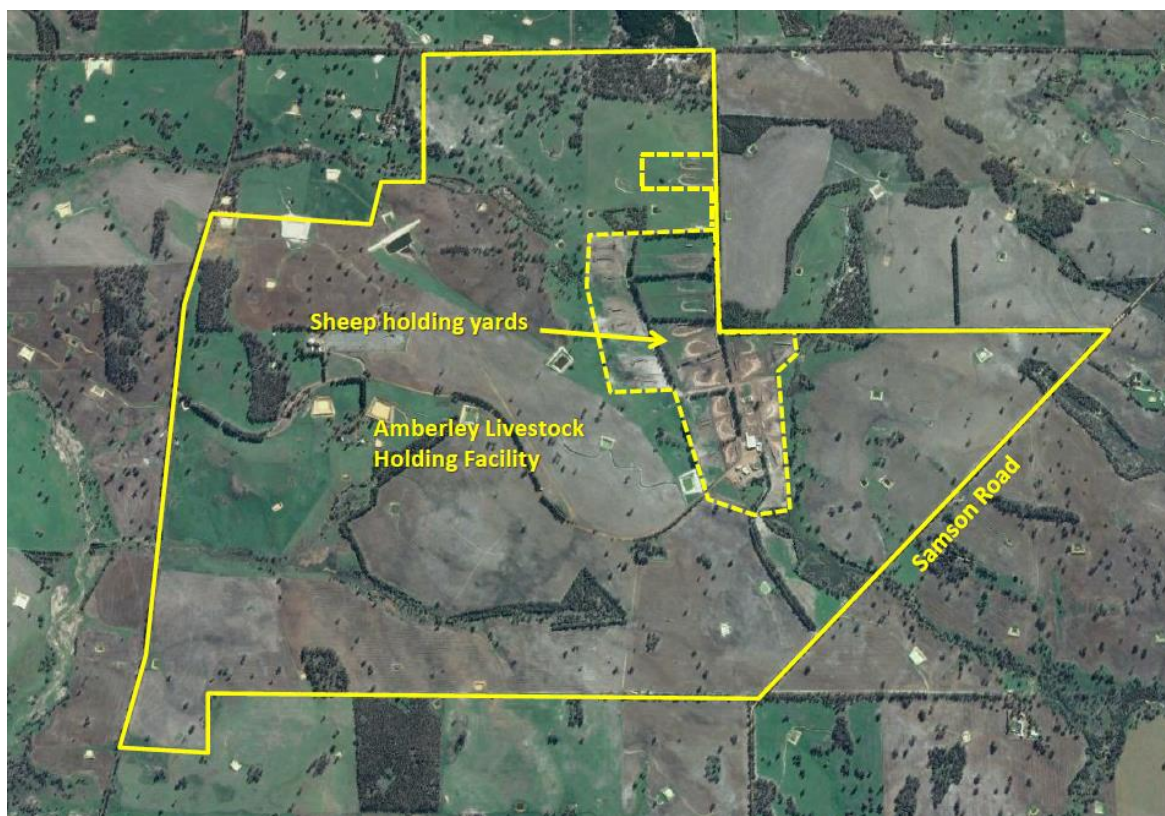


Figure 3: Premises Location – the solid yellow line denotes the premises boundary

6.2 Residential and sensitive premises

The distances to residential and sensitive receptors are as follows:

Table 4: Receptors and distance from activity boundary

Sensitive Land Uses	Distance from Prescribed Activity
Residential zone premises	There are no residential zoned premises within at least 10km of the prescribed premises
Rural dwelling: Within Lot 6 of the premises (intermittently occupied)	1.5km west of the nearest holding yard
Rural dwelling: Lot 1 on Diagram 12972	2.3km north-west of the intensive holding yard area; 1.35km north of the closest section of internal transport road
Rural dwelling: Lot 9 on Plan 227817	1.76km north-west of the entrance road
Rural dwelling: Lot 7 on Plan 227817	1.95km northeast of the intensive holding yard area
Rural dwelling: Lot 3089 on Plan 119782	1.95km east of the carcass burial pit and 1.7km south-east of the intensive holding yard area
Rural dwelling: Lot 52 on Plan 41620	1.65km south, south-east of the carcass burial pit and 1.9km south-east of the nearest holding yard
Assessment of separation distances	<i>The Delegated Officer considers that 1000m separation distance from sensitive land uses is sufficient for noise, dust & odour.</i>

6.3 Specified ecosystems

The Amberley Livestock Holding Facility is located within the northern boundary of the Warren River Water Reserve, but not within a priority assigned area. The dominant surface water feature in proximity to the facility is the Murrin Brook, a tributary of the Tone River, located approximately 1.2 kilometres to the south. The Murrin Brook is fed by the numerous ephemeral drainage lines and creeks which are included within the premises boundary.

A summary of specified ecosystems is presented in Table 5.

Table 5: Specified ecosystems

Specified ecosystems	Distance from the Premises
Public Drinking Water Source Protection Area	Lies within the Warren River Water Reserve, PDWSA No.141. Priority Not Assigned
<i>Rights in Water and Irrigation Act 1914 (RIWI Act) proclaimed Warren-Donnelly surface water area</i>	The Amberley Livestock Holding Facility lies within the Tone River sub-area. There are no wetlands of conservation value in the vicinity of the facility.

6.4 Groundwater and water sources

The distances to groundwater and water sources are shown in Table 6.

Table 6: Groundwater and water sources

Groundwater and water sources	Distance from Premises	Environmental Value
<p>The Licence Holder provided general information on aquifers that underlie the premises referenced from <i>Department of Food and Agriculture Western Australia (DAFWA 2005)</i>.</p> <p>The Licence Holder reports a Total Dissolved Solids (TDS) of 10 200 mg/L for the main bore, consistent with a DoW statement that natural groundwater in the area is brackish to saline.</p>	<p>Based on the Department of Water GIS dataset – WIN Groundwater sites there are 17 registered bores within the facility, most located within the northern section of Lot 8.</p> <p>The northern bores (where records exist) indicate the depth to groundwater to be approximately 2.0m.</p> <p>Three bores (WRN22, WRN23 and WRN24) report groundwater depth from the years 2000 to 2006. Based on these records:</p> <ul style="list-style-type: none"> • depth to groundwater ranges from approximately 3.2m to 4.6m in the vicinity of the holding yards; and • WRN22, located near the southeastern corner of the facility has recorded groundwater depth ranging from 8.2m to 10.5m. This is the nearest known bore to the current carcass burial pit. <p>The 'Main Bore' (WRN12), originally drilled to a depth of 47 metres in 2000, is a production bore located east of the holding yards.</p>	<p>Used for mixing with dam water for supplementary stock watering (Main Bore only).</p>
<p>The Licence Holder provided:</p> <ul style="list-style-type: none"> • general information on the nearest dominant surface water feature and on-site ephemeral creeks; and • a summary of surface water quality from several on-site dams used for stock watering 	<p>The nearest dominant surface water feature is the Murrin Brook (a tributary to the Tone River), located approximately 1200 m south of the southern boundary of the facility.</p> <p>Numerous small ephemeral creeks and drainage lines are located within the facility boundary that report to the Murrin Brook. Seven clay-lined surface water dams exist within the premises boundary, used for stock watering. Several of these dams have been constructed along drainage lines within the premises.</p> <p>The nearest intermittent creeks lie within 50 metres of the southeastern and eastern boundaries of the holding yards.</p>	<p>Intermittent creeks flow to Murrin Brook, then to Tone River. Part of the northern end of Warren River Water Reserve catchment.</p>

6.5 Soil type

Based on soil mapping data provided in the Application, the Licence Holder stated that two soil-landscape systems have been identified for the main operational areas of the livestock holding facility as follows:

1. *Jingalup 1 Sandy phase – small areas of pale deep sands associated with gravelly hill crests and upper slopes, found throughout most of the holding yards; and*
2. *Farrar 3 Subsystem – rocky undulating rises and low hills with mainly grey, deep sandy duplex, red sandy and loamy duplex formed on weathered bedrock. This phase is found at the southeastern corner of the facility.*

6.6 Meteorology

The Amberley Livestock Holding Facility is located approximately 14km south-west of the

nearest Bureau of Meteorology (BoM) weather station at Kojonup.

6.6.1 Wind direction and strength

Wind rose data for the Kojonup weather station is shown in Figure 4.

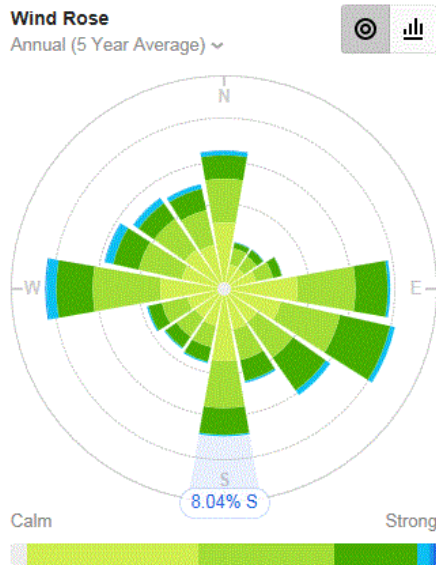


Figure 4: Wind Rose 2011-2016 annual average for Kojonup weather station (source: wind.willyweather.com.au)

It is important to note that this wind rose shows historical wind speed and wind direction data for Kojonup weather station and should not be used to predict future data.

6.6.2 Regional climatic aspects

The Licence Holder stated that the Amberley Livestock Holding Facility is located between the 600 and 500 mm rainfall isohets and generally experiences a temperate climate characterised by warm, dry summers and cool, wet winters. The region is also subject to summer droughts from December to April. Climate statistics are summarised graphically in Figure 5 below.

6.6.3 Rainfall and temperature

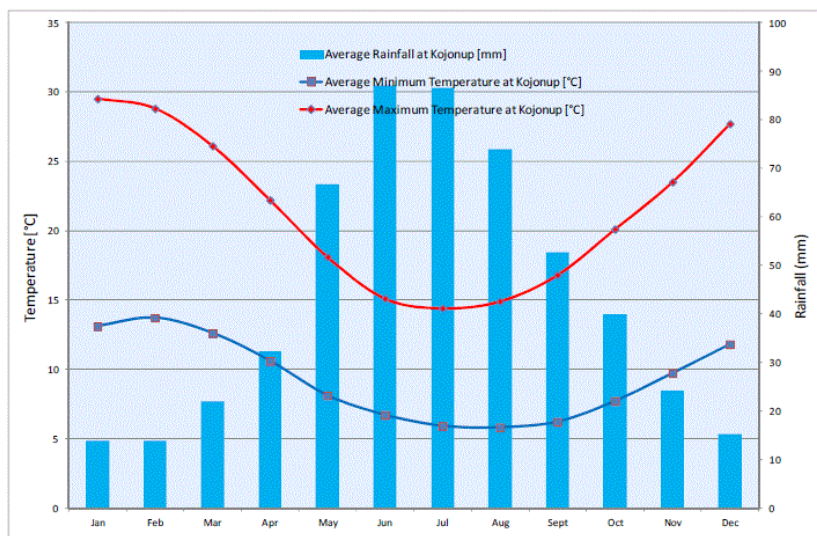


Figure 5: Mean monthly climate data (temperature and rainfall) for Kojonup (source: **BoM** Kojonup weather station)

7. Risk assessment

7.1 Confirmation of potential impacts

Identification of key potential emissions, pathways, receptors and confirmation of potential impacts during both construction and operations are set out in Tables 7 and 8 below. These tables identify which potential emissions will be progressed to a full risk assessment. Some potential emissions/impacts may not receive a full risk assessment where a potential receptor or pathway cannot be identified or where the emissions/impacts are regulated under a Ministerial Statement.

Table 7: Identification of key emissions *during construction*

			Potential Emissions	Potential Receptors	Potential Pathway	Potential Impacts	Continued to detailed risk assessment?	Reasoning
Source (see Section 3.1 for infrastructure references)	Construction of new infrastructure	Vehicle movements on unsealed access roads	Noise	Rural dwellings: 1.35km north of the closest section of internal transport road; 1.76km north-west of the entrance road; and 1.7km south-east of construction area	Air / wind dispersion	None	No	Separation distances are sufficient to ensure there is no pathway to sensitive receptors. Note: the main unsealed access road traverses the centre of the premises with predominantly general grazing or hay production paddocks either side of the unsealed road.
			Dust					
	Construction of new drainage system, wastewater collection pond and manure hardstand	Noise	Rural dwellings: 2.3km north-west, 1.95km northeast and 1.7km south-east of construction area	Air / wind dispersion	None	No	Separation distances are sufficient to ensure there is no pathway to sensitive receptors. Note: construction activity will be confined to a short and limited timeframe.	
		Dust						

Table 8: Identification of key emissions *during operations*

			Potential Emissions	Potential Receptors	Potential Pathway	Potential Impacts	Continued to detailed risk assessment?	Reasoning	
Source (see Section 3.1 for infrastructure references)	Receipt, holding and dispatch of livestock	Lairage and sheep holding yards	Odour	Rural dwellings: Nearest are 1.95km northeast and 1.7km south-east of the intensive holding yards area.	Air / wind dispersion	Amenity	Yes	Despite the separation distances to nearby rural dwellings there are several odour sources, including the lairage and holding yards that could combine to result in odour amenity impacts. Short term maximum holding capacity events during summer months have greater potential for odour generation, when potentially up to 90,000 sheep could be held for several days in the yards outside of the intensive holding area, where distance to the nearest rural dwelling is 1.2km.	
			Noise			Nearest to the boundary of the remaining holding yards is 1.2km north-west	None	No	Separation distances are sufficient to ensure there is no pathway to sensitive receptors. The Environmental Protection (Noise) Regulations 1987 provide adequate regulatory control.
			Dust				None	No	Separation distances are sufficient to ensure there is no pathway to sensitive receptors. Note: existing vegetation windbreaks on the premises mitigate dust dispersal
	Animal & feed transport	Truck movements to and from the lairage and feed silo	Odour	Rural dwellings: Nearest are 1.35km north of the internal transport road and 1.7km south-east of the lairage yard		Amenity	Yes	Despite the separation distances to nearby rural dwellings there are several odour sources from holding yards operations. During maximum holding operations odours from trucks loaded with sheep combined with other on-site odour sources, could result in odour amenity impacts.	
			Noise			None	No	Separation distances are sufficient to ensure there is no pathway to sensitive receptors. The Environmental Protection (Noise) Regulations 1987 provide adequate regulatory control.	
			Dust			None	No	Separation distances are sufficient to ensure there is no pathway to sensitive receptors. Note: the truck transport route is sealed from the Kojonup-Frankland Road entrance for 1.5km. The main unsealed access road traverses the centre of the lots with predominantly general grazing or hay production paddocks either side of the unsealed road.	

Source (see Section 3.1 for infrastructure references)	Collection, handling, storage & disposal of waste	Manure storage area – stockpiling manure from lairage and holding yards and sludge from wastewater storage pond – handling, storage & disposal	Odour	Rural dwellings. Nearest is 1.7 km south-east of the lairage, intensive holding area and manure hardstand and 1.2km north-west of holding yards northern boundary	Air / wind dispersion	Amenity	Yes	Despite the separation distances of rural dwellings closest to the burial pit and holding yards being greater than 1000m, there are several odour sources from holding yards operations which could potentially combine to result in odour amenity impacts. Short term maximum holding capacity events during summer months have greater potential for combined odour amenity impacts. Receptor distance is less to holding yards outside of the intensive yards area.
			Manure and pond sludge waste – leachate generated from temporary storage and rainfall onto manure hardstand	Intermittent creeks – Within 50 metres east and south-east of intensive holding yard boundary Groundwater is approximately 3.2m to 4.6 m BGL in vicinity of the holding yards and proposed manure hardstand	Seepage through soil infiltrating to groundwater	Groundwater contamination Excess nutrients transferred to riparian and intermittent creek ecosystems	Yes	Groundwater and intermittent creek proximity to manure storage area.
		Contaminated stormwater runoff from holding yards - Collection & handling	Odour from captured stormwater / solids in drainage system	Rural dwellings. Nearest is 1.7 km south-east of the intensive holding area	Air / wind dispersion	Amenity	Yes	Despite the separation distances of rural dwellings closest to the contaminated stormwater drainage system being greater than 1000m, there are several odour sources from holding yards operations which could potentially combine to result in odour amenity impacts.
			Emissions to land of contaminated stormwater	Intermittent creeks – Within 50 metres east and south-east of intensive holding yard boundary Groundwater is approximately 3.2m to 4.6 m BGL in vicinity of the holding yards	Seepage through soil infiltrating to groundwater	Groundwater contamination Excess nutrients transferred to riparian and intermittent creek ecosystems	Yes	Groundwater and intermittent creek proximity.

Source (see Section 3.1 for infrastructure references)	Collection, handling, storage & disposal of waste	Wastewater (effluent) storage pond – for disposal via evaporation	Odour	Rural dwellings: Nearest is 1.7km south-east of the new wastewater storage pond	Air / wind dispersion	Amenity	Yes	Despite the separation distances to nearby rural dwellings there are several odour sources from holding yards operations which could potentially combine to result in odour amenity impacts. The pond has a shallow depth and is primarily intended for disposal via evaporation with the increased potential for odour generation over the summer months, which coincides with periods of highest animal holding numbers.
			Wastewater Seepage (leaks) from pond	Groundwater is approximately 3.2m to 4.6 m BGL	Seepage through pond liner or pond walls to soil infiltrating to groundwater	Groundwater contamination Excess nutrients transferred to riparian and intermittent creek ecosystems	Yes	Groundwater and intermittent creek proximity to wastewater storage pond.
			Direct discharge of wastewater to land (pond overtopping),	Intermittent creek and buffer/riparian vegetation Groundwater is approximately 3.2m to 4.6 m BGL	infiltrating through soil into groundwater			
		Carcasses – handling and disposal	Odour	Rural dwellings: Nearest is 1.66 km south-southeast of carcass burial pit and 1.7 km south-east of the intensive holding area. Another rural dwelling is 1.2km north-west of the holding yards northern boundary	Air / wind dispersion	Amenity	Yes	Despite the separation distances of rural dwellings closest to the burial pit and holding yards being greater than 1000m, there are several odour sources from holding yards operations which could potentially combine to result in odour amenity impacts. The Licence Holder carcass burial pit management proposes covering of carcasses with a minimum of 200mm of cover material after each holding event.
			Leachate generated from direct rainfall and stormwater runoff into pit	Groundwater is approximately 8.2m to 10.5m BGL	Seepage through pit base into soil infiltrating to groundwater	Groundwater contamination	Yes	Groundwater proximity relative to excavation depth of carcass pit.

7.2 Risk Criteria

During the assessment the risk criteria in Table 9 below will be applied to determine a risk rating set out in this section 7.

Table 9: Risk Criteria

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

Likelihood		Consequence		
The following criteria has been used to determine the likelihood of the risk / opportunity occurring.		The following criteria has been used to determine the consequences of a risk occurring:		
		Environment	Public Health* and Amenity (such as air and water quality, noise, and odour)	
Almost Certain	The risk event is expected to occur in most circumstances	Severe	<ul style="list-style-type: none"> on-site impacts: catastrophic off-site impacts local scale: high level or above off-site impacts wider scale: mid level or above Mid to long term or permanent impact to an area of high conservation value or special significance[^] Specific Consequence Criteria (for environment) are significantly exceeded 	<ul style="list-style-type: none"> Loss of life Adverse health effects: high level or ongoing medical treatment Specific Consequence Criteria (for public health) are significantly exceeded Local scale impacts: permanent loss of amenity
Likely	The risk event will probably occur in most circumstances	Major	<ul style="list-style-type: none"> on-site impacts: high level off-site impacts local scale: mid level off-site impacts wider scale: low level Short term impact to an area of high conservation value or special significance[^] Specific Consequence Criteria (for environment) are exceeded 	<ul style="list-style-type: none"> Adverse health effects: mid level or frequent medical treatment Specific Consequence Criteria (for public health) are exceeded Local scale impacts: high level impact to amenity
Possible	The risk event could occur at some time	Moderate	<ul style="list-style-type: none"> on-site impacts: mid level off-site impacts local scale: low level off-site impacts wider scale: minimal Specific Consequence Criteria (for environment) are at risk of not being met 	<ul style="list-style-type: none"> Adverse health effects: low level or occasional medical treatment Specific Consequence Criteria (for public health) are at risk of not being met Local scale impacts: mid level impact to amenity
Unlikely	The risk event will probably not occur in most circumstances	Minor	<ul style="list-style-type: none"> on-site impacts: low level off-site impacts local scale: minimal off-site impacts wider scale: not detectable Specific Consequence Criteria (for environment) likely to be met 	<ul style="list-style-type: none"> Specific Consequence Criteria (for public health) are likely to be met Local scale impacts: low level impact to amenity
Rare	The risk event may only occur in exceptional circumstances	Slight	<ul style="list-style-type: none"> on-site impact: minimal Specific Consequence Criteria (for environment) met 	<ul style="list-style-type: none"> Local scale: minimal to amenity Specific Consequence Criteria (for public health) met

^ Determination of areas of high conservation value or special significance should be informed by the *Guidance Statement: Environmental Siting*.

* In applying public health criteria, DER may have regard to the Department of Health's, *Health Risk Assessment (Scoping) Guidelines* "on-site" means within the prescribed premises boundary.

7.3 Risk Treatment

DER will treat risks in accordance with the Risk Treatment Matrix in Table 10 below:

Table 10: Risk Treatment

Rating of Risk Event	Acceptability	Treatment
Extreme	Unacceptable.	Risk event will not be tolerated. DER may refuse application.
High	Acceptable subject to multiple regulatory controls.	Risk event will be tolerated and may be subject to multiple regulatory controls. This may include both outcome-based and management conditions.
Medium	Acceptable, generally subject to regulatory controls.	Risk event is tolerable and is likely to be subject to some regulatory controls. A preference for outcome-based conditions where practical and appropriate will be applied.
Low	Acceptable, generally not controlled	Risk event is acceptable and will generally not be subject to regulatory controls.

7.4 Risk Assessment – Odour

7.4.1 General hazard characterisation and impact

Odour emissions from sheep holding yard operations are generally associated with the accumulation of animal faeces and urine within the holding yards and lairage, stockpiles of stored manure and pond sludge, contaminated stormwater/wastewater storage, removal of pond sludges and the handling and disposal of deceased animals.

7.4.2 Criteria for assessment

There are no set thresholds or concentration criteria for odour assessment. Under section 49(5) of the EP Act, it is an offence to emit or cause to be emitted, an unreasonable emission from any premises. An unreasonable emission is defined in section 49(1) of the EP Act as an emission or transmission of noise, odour or electromagnetic radiation which unreasonably interferes with the health, welfare, convenience, comfort or amenity of any person.

7.4.3 Licence Holder controls

The Licence Holder's Environmental Management Plan (Strategen, August 2016) has been reviewed to document how odour emissions from the premises will be managed. The controls are summarised in Table 11.

Table 11: Licence Holder controls for odour

Control	Description
Infrastructure	<ul style="list-style-type: none"> • New drainage system and evaporation/storage pond to capture potentially contaminated stormwater from the area defined as 'intensive holding area'
Procedures / Management	<ul style="list-style-type: none"> • Quarterly holding yard maintenance and cleaning • Direction of contaminated stormwater from intensive holding area and lairage to the new wastewater evaporation/storage pond • Regular visual inspection of the evaporation/storage pond, at least monthly and after all significant rainfall events to assess buildup of solid waste • Removal of sludge from wastewater storage pond annually or more frequently as required • Dispose of manure, collected from lairage and holding yards, temporarily to the manure storage area, prior to spreading on adjacent paddocks as soon as practically possible to reduce manure volume stockpiled • Deceased animals removed daily from the holding yards and disposed of to the carcass burial pit • Carcasses in the burial pit to be covered on a fortnightly to monthly basis with 100mm of spoil • Maintain a complaints register – actions to address odour complaints may include increasing the frequency of holding yard cleaning and increased frequency of solid waste removal

7.4.4 Key findings

The Delegated Officer has reviewed the information regarding the odour impacts from the premises and has found:

1. *There are no records of odour complaints since the Licence Holder took over operations in 2006 and all sensitive receptors are at a distance greater than 1000 metres away. Although sensitive receptors are relatively distant, it is considered there is potential for amenity impacts as a result of combined odour sources during maximum animal holding conditions.*
2. *Odours generated at the Premises are expected to be typical of the rural area.*
3. *The carcass burial pit, a potential odour source, is located within ten metres of the southern premises boundary. Whilst dead animals are removed from the holding yards within 24 hours, the licence holder proposes to cover carcasses disposed of in the burial pit with a minimum of 200mm of soil after each holding event.*

7.4.5 Consequence

Based upon the proximity to sensitive receptors the Delegated Officer has determined that the impact of odour on amenity will be unlikely to be detectable at nearby rural dwellings. Therefore, the Delegated Officer considers the consequence to be **slight**.

7.4.6 Likelihood of consequence

Based upon the premises history of no odour complaints and operator controls the Delegated Officer has determined that the likelihood of detectable odour impacts on amenity will probably not occur in most circumstances. Therefore, the Delegated Officer considers the consequence to be **unlikely**.

7.4.7 Overall rating

The Delegated Officer has compared the consequence and likelihood ratings described above for the Risk Criteria (Table 9) and determined that the overall rating for the risk of odour

amenity impacts on sensitive receptors during operation is **Low**.

7.5 Risk Assessment – Impact of Emissions to Land and Groundwater

7.5.1 General hazard characterisation and impact

The Licence Holder has requested as part of the Application, to be permitted to hold up to 120,000 animals at any one time. The holding yards are all located on gently sloping land and yard surfaces are either open bare ground or have pasture growing. One of the current holding yards will change usage to a waste storage area for the new contaminated stormwater / wastewater storage pond and manure storage.

Under the requirements of the quarantine export licence for the facility, the Licence Holder cannot hold sheep for any more than 15 days, with the average maximum holding time being around 11 days. Highly stocked, longer holding periods allow for increased accumulation of deposited sheep urine and faeces, with a risk of generating contaminated stormwater runoff from the holding yards following rain. The high nutrient and organic loading in runoff has the potential to infiltrate through the soil and contaminate groundwater and to potentially contaminate the intermittent creek close to the eastern boundary of several holding yards.

Currently the only potentially contaminated stormwater collected and stored is from the lairage and two of the smallest holding yards just north of the lairage. As part of the licence amendment, the Licence Holder has defined the boundary of the 'intensive holding area' which incorporates several yards immediately north of the lairage and a series of yards (numbered 27 - 30) along the eastern border adjacent to an intermittent creek. At maximum capacity these yards could hold up to 30,000 sheep for 24-48 hours during receipt and loadout operations. The Licence Holder will construct drainage channels surrounding these yards to capture stormwater runoff to be conveyed and stored in a new wastewater (effluent) storage/evaporation pond.

The remainder of the holding yards have surfaces with varying degrees of bare earth and vegetative cover and these yards slope downwards to the south and south-west with no drainage infrastructure existing or proposed to intercept stormwater runoff. At maximum holding capacity of up to 120,000 sheep at any one time, potentially 90,000 or more sheep could be held in these yards for a short period. However, at wet times of year intense holding events are reduced and avoided.

Emissions to land could also occur as a result of leaks or overtopping of the storage pond, the contaminated stormwater drainage system, the manure stockpile or carcass burial pit or as a result of the removal and handling of sludge from the wastewater storage pond.

Groundwater depth across the premises ranges from approximately 2.0m to 10.5m below ground level. Soils in the vicinity of the holding yards are generally classified as pale deep sands with gravelly hill crests. The main production groundwater bore used for supplementary stock watering has been periodically sampled and tested for a range of water quality parameters. There are currently no monitored groundwater bores within the vicinity of the holding yards, carcass burial pit or current manure stockpile area and wastewater collection pond.

Aside from onsite dams used for stock watering, the adjacent creek only flows intermittently subject to winter rains and is located approximately 50 metres or more from the nearest holding yards, the proposed new wastewater storage pond and manure stockpile. Potential impacts on creek surface water quality are likely to be indirect, resulting from potential water quality impacts on groundwater.

7.5.2 Criteria for assessment

Australia and New Zealand (ANZECC) Guidelines for Fresh and Marine Water Quality are considered appropriate assessment criteria to assess potential impact on groundwater or surface water quality.

The Licence Holder provided in the Application an assessment of available groundwater and surface water (dam) water quality data against the Australian Drinking Water Guidelines (2004) and Department of Health (DoH) Guidelines for the Non-potable Uses of Recycled Water in Western Australia, August 2011.

7.5.3 Licence Holder controls

The Licence Holder's Environmental Management Plan (Strategen, August 2016) has been reviewed to document how emissions to land from premises operations will be managed. The controls are summarised in Table 12.

Table 12: Licence Holder controls for emissions to land

	Control	Description
Leachate from holding yards, lairage, manure stockpile, carcass burial pit and effluent pond	Infrastructure	<ul style="list-style-type: none"> Lairage yard has a roof to reduce generation of contaminated stormwater and has a sloping, concrete floor to reduce waste seepage and assist drainage flows Manure stockpile hardstand and effluent storage and evaporation pond are to be engineered and constructed to achieve 1×10^{-9} m/s permeability Carcass burial pit depth is at least 2.0m above the seasonal high water table Clay subsoil permeability in vicinity of the carcass burial pit is less than 10^{-9} m/s
	Procedures / Management	<ul style="list-style-type: none"> Regular visual inspection of holding yards and effluent pond, on a monthly basis as a minimum and following significant rainfall events to assess solid waste build –up Quarterly cleaning and maintenance of holding yards
Effluent/stormwater runoff from intensive holding area impacts on land & water (intermittent creek line)	Infrastructure	<ul style="list-style-type: none"> Effluent drainage system and storage/evaporation pond to capture runoff from intensive holding area Drainage diversion bunds constructed to channel uncontaminated stormwater away from the intensive holding area
	Procedures / Management	<ul style="list-style-type: none"> Regular visual inspection of holding yards and effluent pond, minimum of monthly and following significant rainfall events to assess solid waste build –up Quarterly cleaning and maintenance of holding yards
Discharges to land from uncontrolled wastewater runoff and/or overtopping of the effluent storage/evaporation pond	Infrastructure	<ul style="list-style-type: none"> Minimum effluent pond freeboard of 500mm is maintained All wastewater fully contained within the effluent catchment area and storage pond Drainage diversion bunds constructed upstream of the effluent storage pond to channel uncontaminated stormwater away from the pond
	Procedures / Management	<ul style="list-style-type: none"> Regular visual inspection of the effluent drainage system and pond, minimum of monthly and following significant rainfall events to assess integrity and build-up of solid wastes Maintenance and cleaning of effluent pond conducted annually as a minimum. Additional works completed in response to inspections

7.5.4 Key findings

The Delegated Officer has reviewed the information regarding the emissions to land impacts from the premises and has found:

1. *The generation of contaminated stormwater from the holding yards has the potential to impact groundwater and indirectly impact intermittent creek surface water quality due to the proximity of groundwater and the adjacent creek line.*
2. *Solid wastes including manure, pond sludge and deceased animals have the potential to impact groundwater quality if not properly contained and managed.*
3. *The defined intensive holding yards area is noted as being capable of holding up to 30,000 sheep in total, which are held from 24-48 hours during peak receival and loadout operations in this area. Capture, storage and disposal of contaminated runoff from these yards is considered appropriate as proposed by the Licence Holder.*
4. *Under the maximum requested holding capacity of 120,000 sheep at any one time, there could be 90,000 sheep or more held for several days within yards outside of the intensive holding area. There is no existing or proposed infrastructure to intercept potentially contaminated stormwater runoff to land from these yards.*
5. *The closest groundwater bore to the proposed new effluent storage pond reports historical depth records of 3.2 to 4.6 metres. The Licence Holder has stated (email correspondence dated 4 October 2016) that the new pond will be constructed with a minimum of 5 metres depth to groundwater from the base of the pond. The proposed location of the pond is close to the convergence of two ephemeral drainage lines suggesting that the pond may not be able to meet a minimum separation to groundwater requirement of 2 metres.*
6. *Limited groundwater depth and quality data is available in the vicinity of the holding yards, wastewater storage pond, and current carcass pit. The excavated depth of the current carcass burial pit to 7- 8 metres may not allow for a minimum separation distance to the seasonal high groundwater level to be met, based on historical records from the closest WIN bore.*

7.5.5 Consequence

Based upon the proximity to groundwater and the ephemeral creek lines and the use of holding yards not included in the contaminated stormwater capture and storage infrastructure the Delegated Officer has determined that the impact of emissions to land will have mid level on-site impacts and low level off-site impacts at a local scale. Therefore, the Delegated Officer considers the consequence to be **moderate**.

7.5.6 Likelihood of consequence

Based upon rainfall events and peak operating times, infrastructure and operator controls the Delegated Officer has determined that the likelihood of low level off-site impacts of emissions to land could occur at some time. Therefore, the Delegated Officer considers the consequence to be **possible**.

7.5.7 Overall rating

The Delegated Officer has compared the consequence and likelihood ratings described above for the Risk Criteria (Table 9) and determined that the overall rating for the risk of emissions to land during operation is **Medium**.

7.6 Summary of risk assessment and acceptability

A summary of the risk assessment and the acceptability of the risks with treatments are set out in Table 13 below. Controls are described further in section 8.

Table 13: Risk assessment summary

	Emission		Pathway and Receptor	Licence Holder controls	Impact	Risk Rating	Acceptability with treatment (conditions on instrument)
	Type	Source					
1.	Odour from animals, holding yards and storage of waste materials	Lairage and animal holding yards Contaminated stormwater runoff & storage Manure and pond sludge – handling and storage Carcass handling & disposal Loaded sheep transport trucks	Air/Wind dispersion Receptor: Rural residences	Infrastructure including new works Management / operational controls	Amenity	Slight consequence Unlikely Low risk	Acceptable subject to Licence Holder controls conditioned
2.	Emissions to land and groundwater from contaminated stormwater and leaks, spills or overtopping of waste material storage areas	Lairage and holding yards Wastewater (effluent) drainage system and storage pond Manure hardstand Carcass burial pit	Seepage through soil Overland or subsurface flow towards creek lines Receptors: Groundwater Riparian vegetation & ephemeral creek line	Infrastructure including new works Management / operational controls Specified actions	Groundwater quality Indirect impact on ephemeral creek surface water quality	Moderate consequence Possible Medium risk	Acceptable subject to Licence Holder and regulatory controls

8. Determined Regulatory Controls

A summary of the risks with corresponding controls are set out in Table 14. The risks are set out in the assessment in section 7 and the controls are detailed in this section 8. Controls will form the basis of conditions in the licence set out in Attachment 1.

Table 14: Summary of regulatory controls to be applied

		Controls (references are to sections below setting out details of controls)			
		8.1 Siting of Infrastructure	8.2 Specified Infrastructure and Equipment	8.3 Specified Actions	8.4 Groundwater Monitoring and Reporting
Risk Items (see risk analysis in section 7)	1. Odour		•	•	
	2. Emissions to Land and Groundwater	•	•	•	•

8.1 Siting of infrastructure controls

All livestock holding facility infrastructure must be located at least 50 metres from any watercourse, including ephemeral creek lines.

Distance from infrastructure must be calculated from the relevant holding yard or infrastructure fence boundary.

Grounds: The separation distance is required to protect the water quality and ecological function of the ephemeral creek drainage system. The proposed new infrastructure is to be constructed within the current footprint of an existing holding yard.

8.2 Specified infrastructure and equipment controls

The following infrastructure and equipment should be maintained and operated onsite for the control of odour and the management of solid wastes and contaminated stormwater to minimise the risk of any emissions to land and impacts on groundwater quality.

The specified infrastructure and equipment controls presented in Table 15 incorporate design and management requirements of new infrastructure proposed for construction by the Licence Holder. In addition, Licence Holder controls have either been transferred from the existing Licence or identified as operator controls in the site Environmental Management Plan submitted as part of the Application.

The location and construction design details for the new effluent drainage and storage infrastructure are detailed in Figures 6 and 7 below.

Table 15: Specified Infrastructure and equipment controls

Column 1	Column 2	Column 3	Column 4
Site infrastructure	Description	Operation details	Reference to Premises Map (Schedule 1)
Intensive holding yards including the contaminated stormwater drainage system	<p>Seven earth-based, fenced off holding yards immediately north and east of the lairage.</p> <p>Bunded stormwater drainage system (permeability less than 10⁻⁹ metres/second) designed to capture and convey all stormwater runoff from the intensive holding yard area to the wastewater storage pond.</p>	<p>Manure must be cleaned out and removed from the yards to the manure storage area at least quarterly.</p> <p>Uncontaminated stormwater must be prevented from entering the yards.</p> <p>Sediment traps within the drainage system must be inspected at least monthly and after all significant rainfall events and maintained to prevent leakage and spills.</p> <p>Deceased animals must be removed within 24 hours of their death and disposed of in the carcass burial pit.</p> <p>The yards must be inspected before and after each holding event to identify any additional requirements for cleaning and maintenance.</p> <p>Fencing must be maintained so as to prevent sheep from gaining access to the vegetated creek line buffer east of the intensive holding yards.</p>	Map 3
All other holding yards additional to the defined intensive holding yards area	26 combined earth and pasture-based, fenced individual holding yards occupying an estimated total area of 80 hectares.	<p>Manure must be cleaned out and removed from the yards to the manure storage area at least quarterly.</p> <p>Uncontaminated stormwater must be prevented from entering the yards.</p> <p>Deceased animals must be removed within 24 hours of their death and disposed of in the carcass burial pit.</p> <p>The yards must be inspected before and after each holding event to identify any additional requirements for cleaning and maintenance.</p>	Map 2

Column 1	Column 2	Column 3	Column 4
Site infrastructure	Description	Operation details	Reference to Premises Map (Schedule 1)
Lairage	<p>Roofed with open sides and a sloping concrete floor. Floor area is 3800 square metres.</p> <p>Concrete apron / bund around the perimeter.</p> <p>Designed to direct any contaminated runoff to the wastewater storage pond.</p>	<p>Manure must be cleaned out and removed to the manure storage area following each holding event.</p> <p>Uncontaminated stormwater must be prevented from entering the lairage.</p>	Maps 2 and 3
Wastewater storage pond	<p>A clay lined pond engineered to achieve permeability less than 10^{-9} metres/second. Designed to receive and store contaminated wastewater runoff from the intensive holding yard area and lairage.</p> <p>Holding capacity of 5,800m³, including freeboard.</p> <p>Survey marker installed on the pond to enable determination of the freeboard.</p>	<p>The pond must be inspected at least monthly, and immediately following a rainfall event, to assess the pond freeboard and any build-up of solid waste.</p> <p>A minimum freeboard of 500mm must be maintained.</p> <p>Sludge accumulated at the base of the pond must be removed and transferred to the manure storage area at least annually.</p> <p>The pond surface must be kept free of floating matter or debris.</p> <p>Vegetation must be prevented from growing on inner pond embankments or becoming rooted within the pond base or accumulated sludge.</p>	Map 3

Column 1	Column 2	Column 3	Column 4
Site infrastructure	Description	Operation details	Reference to Premises Map (Schedule 1)
Manure storage area	<p>A clay lined and bunded area (50 metres by 10 metres) engineered to achieve permeability less than 10^{-9} metres/second.</p> <p>Designed for the temporary storage of solid manure wastes collected from holding yards or the lairage or to store sludge removed from the wastewater storage pond, prior to disposal by spreading to land.</p> <p>Design capacity is 4,000 tonnes at any one time.</p>	<p>The volume of manure or pond sludge stored within the manure storage area must not exceed the design capacity of 4,000 tonnes at any one time.</p> <p>The area must be inspected at least monthly, and immediately inspected following a rainfall event, to assess for any spills or leakage.</p> <p>Any leachate generated within the manure storage area must drain to the wastewater storage pond.</p> <p>Containment bunds must be maintained to prevent any leaks or spills of leachate.</p> <p>Pond sludge placed on the manure storage area must be allowed to dry out prior to disposal by spreading to land.</p>	Map 3
Carcass burial pit	<p>A pit (Dimensions: 20 metres by 3 metres by 7 metres depth) excavated into the in-situ clay based soil with a tested permeability less than 10^{-9} metres/second.</p>	<p>The pit base is to have a separation to the seasonal high groundwater level of at least 2 metres.</p> <p>Must be located at least 100 metres away from any well, abstraction bore or watercourse.</p> <p>Carcasses must be covered by a minimum of 200mm cover material after each holding event to ensure all deceased animals are fully covered.</p> <p>The perimeter of the pit must be bunded to prevent stormwater runoff from entering the pit.</p>	Maps 2 and 4

Figure 6: Intensive Holding Yard Drainage Design

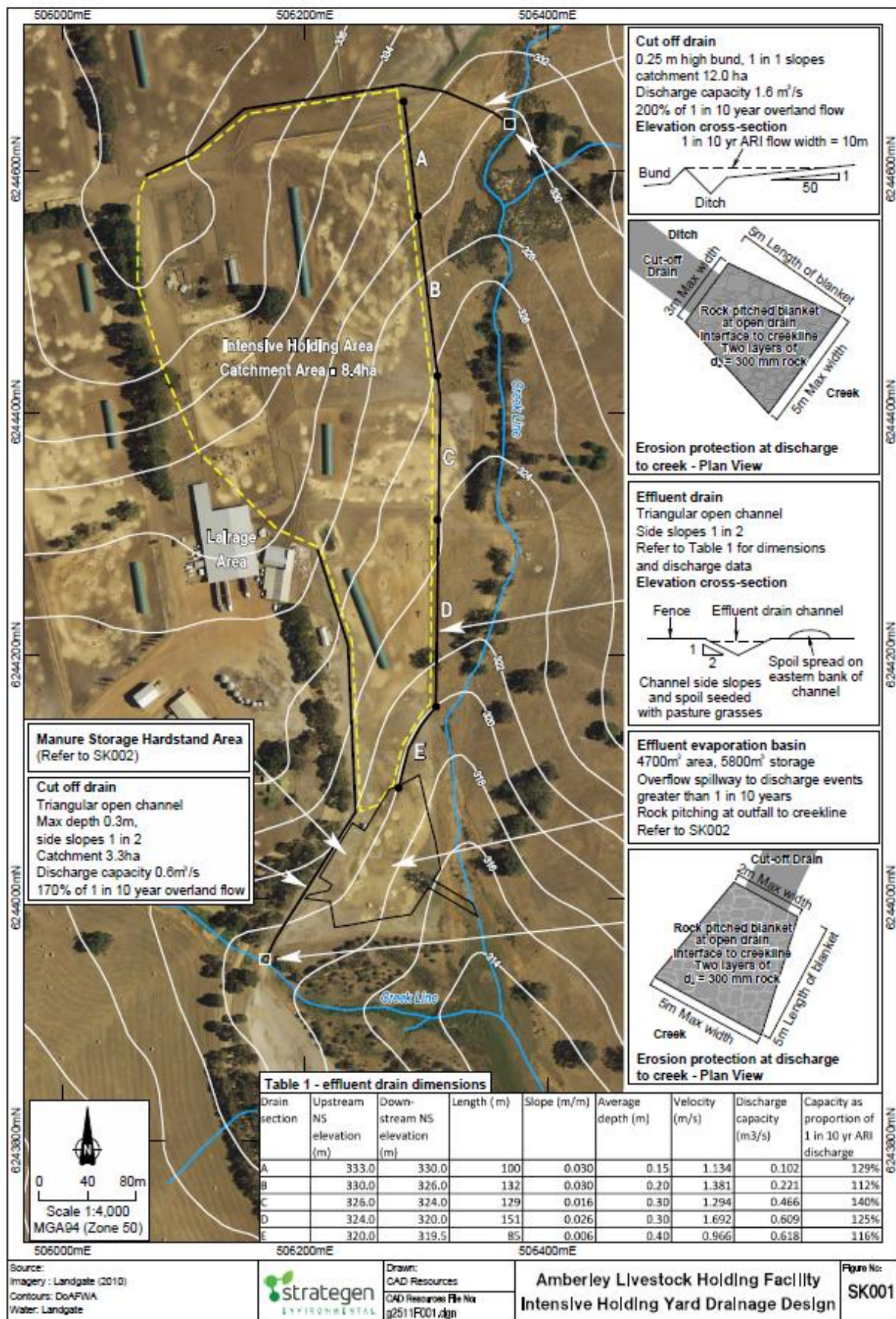
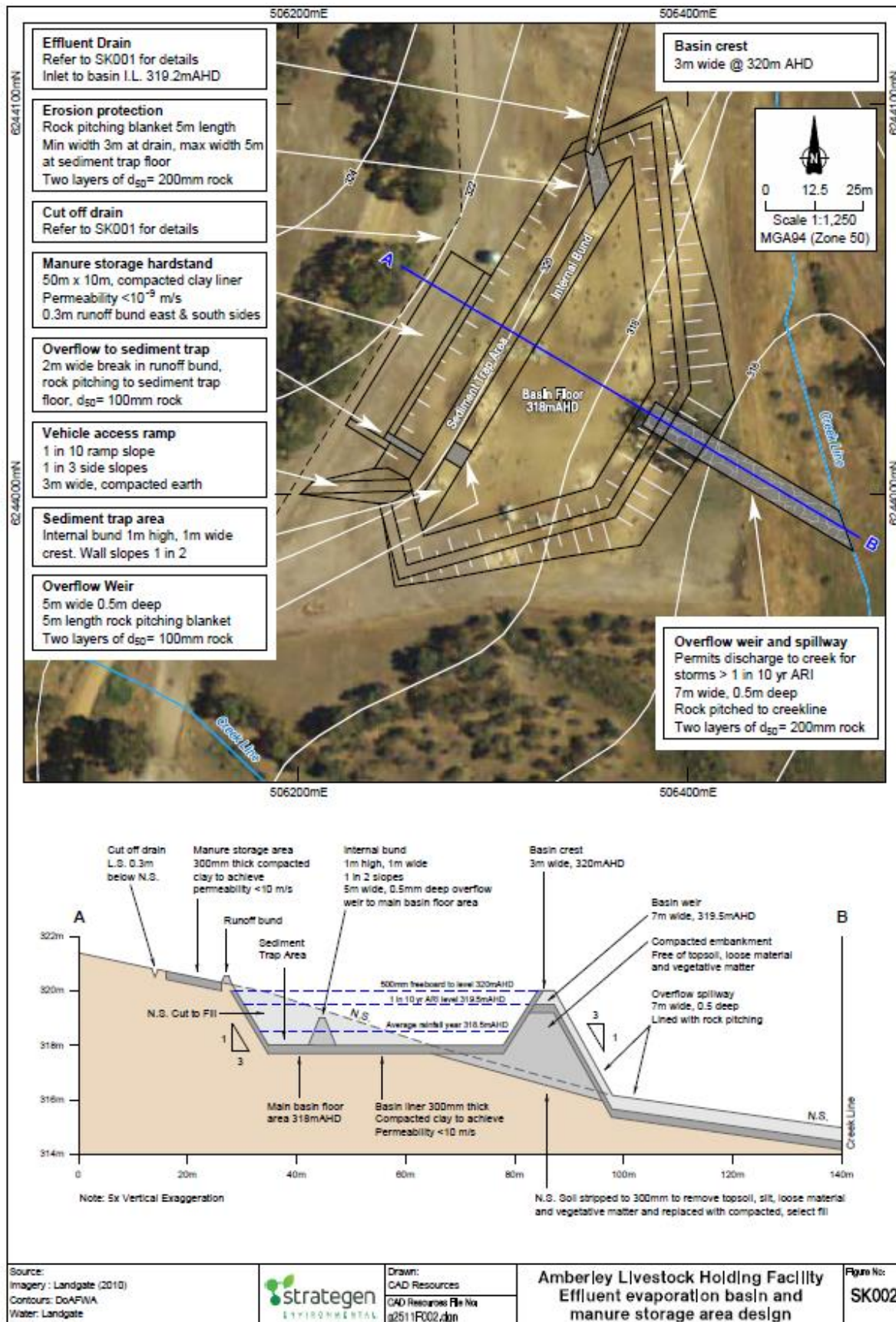


Figure 7: Effluent Evaporation Pond and Manure Storage Area



8.3 Specified actions

The amended Licence specifies upper limits to the annual animal holding number and the total number of sheep that can be held at any one time within the holding yards. These limits have been requested by the Licence Holder as part of the Licence amendment and considered in the risk assessment.

8.4 Groundwater monitoring and reporting

The Licence Holder must install four groundwater monitoring bores;

- one located down hydraulic gradient of the new wastewater storage pond;
- one located just north of the cut-off drain at the northern boundary of the intensive holding yards and adjacent to the eastern creekline;
- one located down hydraulic gradient of the western side of the southwestern line of holding yards; and
- one located within 20 metres of the current carcass pit.

These bores are to be monitored quarterly for standing water levels and for nutrients and other standard physical and chemical water quality parameters. Samples must be analysed by a NATA accredited laboratory.

Note: Groundwater monitoring is noted as a contingency measure for assessing potential impacts on emissions to land from operation of the holding yards by the Licence Holder. Groundwater monitoring and reporting requirements have been set based on the risk assessment for impacts to groundwater.

Grounds: The only current and consistently monitored bore at the Premises is the main bore used for supplementary animal watering. This bore samples from the deeper groundwater aquifer, which is not considered to be at risk from discharges from the animal holding activity. Other existing bores on-site are either no longer functional and/or are not suitably located for monitoring. The required new bores will provide seasonal groundwater depth data to ensure that minimal separation requirements are being met for the new wastewater storage pond and the current and future carcass pit excavation depth. Since there will be no stormwater runoff management from the majority of the holding yards in use (outside of the intensive holding area), six monthly water quality monitoring of all bores will enable potential impacts on groundwater quality from holding yards activity, as well as solid waste storage and disposal impacts, to be determined.

9. Appropriateness of Licence conditions

The conditions in the Amended Licence in Attachment 1 have been determined in accordance with DER's *Guidance Statements on Setting Conditions*.

DER's *Guidance Statement on Licence Duration* has been applied and the Issued Licence expires in 20 years from date of issue.

Condition Ref	Grounds
Environmental Compliance Condition 1	Environmental compliance is a valid, risk-based condition to ensure appropriate linkage between the licence and the EP Act.
Notification of Material Change 2, 3 and 4	These conditions are valid, risk-based and enable flexibility in operations.
Works 5,6,7,8,9,10	These conditions are valid, risk-based and contain appropriate controls.
Infrastructure and Equipment 11 and 12	These conditions are valid, risk-based and contain appropriate controls (see section 8.2) and include transfer of the existing Licence uncontaminated stormwater, pond freeboard and animal carcass disposal conditions 7, 8, 9, 10 and 11.
Specified Actions 13	This condition specifies limits to animal holding numbers in accordance with the Licence Holder requested amendments and were considered in the risk assessment and setting appropriate controls.
Groundwater Monitoring and Reporting 14,15, 16, 17	These conditions are valid, risk-based and contain appropriate controls
Emissions 18	This condition is valid, risk-based and consistent with the EP Act
Information 19,20,21,22,23	These conditions are valid and are necessary administration and reporting requirements to ensure compliance and include transfer of the existing Licence reporting conditions 12 and 13.
Conditions removed from the existing licence L5101/1981/11 and not transferred to the amended licence	<p>Conditions 1, 2 and 3 related to Category 23: Animal Feed Manufacturing an activity not being undertaken and requested for removal by the Licence Holder.</p> <p>Condition 4 regarding hydrocarbon and chemical storage is adequately covered under the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>.</p> <p>Conditions 5 and 6 are dust control conditions which were risk assessed as not having a pathway to sensitive receptors.</p>

DER notes that it may review the appropriateness and adequacy of controls at any time, and that following a review, DER may initiate amendments to the licence under the EP Act.

10. Licence Holder's comments

The Licence Holder was provided with the draft decision report and draft amended licence on 20 December 2016. The Licence Holder provided requested infrastructure design details on 24 April 2017 along with comments on the draft decision report and draft amended licence.

The Licence Holder's response is set out below:

Licence Holder comments	DER's consideration of comments
<p>Two bores along the eastern intensive holding yard boundary are considered to be in excess of the risk. Request one bore instead of two.</p> <p>If DER retains the requirement for all four bores to be installed, Licence Holder requests a two-year time period for monitoring bores to be specified in the Licence at which time the monitoring condition be reviewed.</p>	<p>The Delegated Officer considers that all four bores should be installed. With respect to the proposed more northern bore close to the eastern ephemeral creek line (MB2), the cut-off drain to the north of the defined intensive holding yard area (Refer Figure 6) will direct drainage from north of the intensive holding yards, to the ephemeral creek line. In line with elevation contours, there is potential for this drainage to be contaminated by runoff from three general holding yards to the north.</p> <p>Therefore, the Delegated Officer has altered the proposed location of MB2 to just north of the cut-off drain and adjacent to the creek line to monitor for potential contaminated runoff impacts to groundwater in this area.</p> <p>With respect to timelines on bore monitoring requirements, the Delegated Officer notes that with only six-monthly water quality data being generated from all new bores, it is likely that more than two years of data would be required to establish baseline levels and indications of seasonal variation. The Licence Holder can submit an application for a licence amendment to change monitoring requirements when appropriate.</p>
<p>Requested a 100-day timeframe for installing and commissioning bores.</p>	<p>The Delegated Officer proposed a 60-day timeframe in the draft. Condition 14 of the Licence has been changed to allow for an extended timeframe for the installation and commissioning of all new bores to be completed within 100 days of the Licence amendment date.</p>

11. Conclusion

This assessment of the risks of activities on the premises has been undertaken with due consideration of a number of factors, including the documents and policies specified in this decision report (summarised in Appendix 1). This assessment was also informed by site inspections by DER officers on 7 July 2015 and 4 May 2016.

Based on this assessment, it has been determined that the Revised Licence will be granted subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

Jonathan Bailes

A/Senior Manager – Industry Regulation (Process Industries)

Delegated Officer under section 20 of the Environmental Protection Act 1986

Appendix 1: Key Documents

	Document Title	In text ref	Availability
1	Licence L5101/1981/11– Amberley Livestock Holding Facility		accessed at http://www.der.wa.gov.au
2	DER <i>Guidance Statement on Regulatory principles</i> , July 2015	DER 2015a	accessed at http://www.der.wa.gov.au
3	DER <i>Guidance Statement on Setting conditions</i> , September 2015	DER 2015b	
4	DER <i>Guidance Statement on Licence duration</i> , November 2014	DER 2014	
5	DER <i>Guidance Statement on Risk Assessments</i> , November 2016	DER 2016a	
6	DER <i>Guidance Statement on Environmental Siting</i> , November 2016	DER 2016b	
7	DER <i>Guidance Statement on Decision Making</i> , November 2016	DER 2016c	
8	Ausvision Rural Services 2016a: Licence Amendment Application Form, Amberley Holding Yards, 8 August 2016		
9	Ausvision Rural Services 2016b: Licence Amendment Summary Amberley Holding Yards, 4 August 2016		
10	Ausvision Rural Services 2016c: Amberley Livestock Holding Facility Environmental Management Plan, Strategen Environmental Consultants Pty Ltd, August 2016	Strategen, August 2016	
11	Shire of Kojonup, September 2016: Email correspondence. 23 September 2016. Shire response regarding application and planning approval		
12	Ausvision Rural Services 2016d: Email correspondence. 3 October 2016. Response from Holly Ludeman of Livestock Shipping Services Pty Ltd to DER request for further information		
13	Ausvision Rural Services 2017a: Email correspondence 24 April 2017. Response from Holly Ludeman of Livestock Shipping Services Pty Ltd to DER request for review of draft Decision Report and Amended Licence and providing further new infrastructure information		

Attachment 1: Revised Licence L5101/1981/11
