Decision Report

Application for works approval

Division 3 Part V of the *Environmental Protection Act 1986*

Works Approval Number	W6511/2021/1
Applicant	Prime Meat Co Pty Ltd
ACN	628 286 046
File number	DER2020/000611
Premises	Waroona Abattoir 86 Waterous Road WAGERUP WA 6215
Date of report	22 April 2021
Proposed decision	Works approval granted

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1. Decision summary

This report documents the assessment of potential risks to the environment and public health from emissions and discharges during the recommissioning of an existing abattoir that has been non-operational since 2009. As a result of this assessment, works approval W6511/2021/1 has been granted.

In completing the assessment documented in this report, the department has considered and given due regard to its regulatory framework and relevant policy documents which are available at https://dwer.wa.gov.au/regulatory-documents.

2. Scope of assessment

2.1 Application summary and overview of premises

On 30 November 2020, Prime Meat Co Pty Ltd (the applicant) applied under section 54 of the *Environmental Protection Act 1986* (EP Act) for a works approval to recommission the Waroona abattoir that has been non-operational for 12 years, located about 2.8 km north of Waroona.

The below table describes the prescribed premises category that the application is subject, as defined in Schedule 1 of the Environmental Protection Regulations 1987:

Prescribed premises category description (Schedule 1, Environmental Protection Regulations 1987)	Assessed design capacity
Category 15: Abattoir: premises on which animals are slaughtered	83,5000 tonnes per year (hot standard carcase weight). Sheep and cattle only

The premises previously operated under licence L8230/2008/1, issued to previous owners South West Meat Processors Pty Ltd. This licence was subsequently revoked in September 2009 and the premises has not been operated since.

The applicant advises the existing infrastructure at the premises has a design capacity for 83,500 tonnes per year (based on operating 365 days per year), although the abattoir is likely to run closer to 250 days per year.

Rendering (Category 16) activities that took place on site in previous years are not proposed to be re-opened at this stage and therefore are not considered as part of this assessment.

Fellmongering (Category 83) is also excluded as all skins and hides will be removed off-site for processing or disposal.

2.2 Operational aspects

Process Summary

The premises will slaughter sheep and cattle for meat production and will operate for 10 hours a day (07:00 to 17:00), five days a week, 50 weeks a year with a production capacity of approximately 86,500 tonnes per year (hot standard carcase weight). Initial production is expected to start at a throughput of approximately 25% of total capacity (1,000 sheep and 175 cattle per day), ramping up to full capacity after six months.

Animal Delivery

Animals will be delivered to the premises in road trucks and will be offloaded into the holding pens or covered lairage. Any animals that are injured, sick or deceased on arrival will be quarantined and either removed from the site or, after assessment, accepted for slaughter in the abattoir.

Animal delivery trucks will not be washed out at the abattoir and will leave the site once the delivery is complete. Deliveries will be scheduled to match slaughter capacity and demand and to minimise the time animals are held at the abattoir prior to slaughter. If the abattoir must be shut down, animals will be diverted to alternative holding yards or abattoirs.

Stock holding pens and lairage

Cattle will be held in the external holding pens and covered lairage for 12 to 18 hours prior to slaughter. Animals scheduled for imminent slaughter will be held in the covered lairage area. The lairage pens have a concrete floor and drainage channels that direct wastewater to a sump connected to the wastewater treatment system. Manure from the lairage will dry-scraped and collected daily and stored on a bunded concrete pad prior to removal off-site for disposal.

External holding pens will be used to hold the overflow of animals not scheduled for imminent slaughter. The external pens have a compacted natural surface graded to allow wastewater to runoff to drainage channels, which are connected to the lairage wastewater sump. Manure will be incorporated into the soil, scraped, and excess collected and stored.

Abattoir

The animals will enter the abattoir, and mechanical means will be used to stun them before they are bled. The skins and hides will then be removed from the carcasees followed by the internal organs, heads, and hooves (offal). The undigested contents from the stomach (paunch) are also removed. The carcasees will then be sectioned, and waste fat and bone removed. Either the whole carcase or the sections will be stored in cool rooms prior to being transported off-site.

Blood will be collected in a dedicated holding tank and removed off-site daily for processing. The skins will be pulled from the carcase and collected in enclosed skip bins for removal off-site.

Unwanted offal, paunch, fat and bone will be stored in covered hoppers and trailers and removed off-site daily for rendering.

For hygiene reasons, the abattoir will use a large amount of water for wash down, cleaning and sterilisation. Raw water will be supplied by Harvey Water and stored in an onsite dam. Wastewater from abattoir operations will be treated in a new wastewater treatment system, prior to being temporarily stored on-site in lined ponds and distributed as part of a recycled water scheme to various potential third party end users.

Wastewater treatment infrastructure

A new wastewater treatment plant will be constructed, which is designed to achieve medium risk (Class C) water recycling quality as per Department of Health (DoH 2011) guidelines for potable uses of recycled water in Western Australia, being:

- Soluble BOD_5 <20 mg/L;
- Suspended solids of <30 mg/L;
- pH of 6.5 to 8.5;
- *E.coli* concentration of <10 CFU/100 ml; and
- Total Nitrogen <13 mg/L; and
- Total Phosphorus <0.3 mg/L

Class C recycled water is suitable for use on public recreational areas, fire-fighting, fountains/water features and agricultural and horticultural (orchards) use.

In summary, the proposed system will include secondary and tertiary treatment followed by membrane filtration and multi-barrier disinfection and polishing. The staged treatment is as follows:

- Pre-treatment: Static coarse screen, rotary screen, balancing tank for flow equalisation and dissolved air flotation (DAF).

- Secondary and tertiary treatment: Three-stage [A2O] Phoredox system for anaerobic/anoxic/aerobic nutrient removal, and a secondary clarifier (DAF).
- Polishing System (recycled water production): Coarse filtration, fine filtration, ultrafiltration (UF) and double barrier disinfection (UV irradiation and chlorination).

Once the first 2 stages are complete, the treated effluent will be directed to the polishing system to ensure a final water consistent with the 'medium' risk category from the Department of Health (DoH 2011) guidelines for off-site acceptance by third parties.

Wastewater treatment ponds

The wastewater treatment infrastructure includes two existing ponds that were previously used for wastewater storage/equalisation and treated water storage. The ponds have total storage capacity of 4,134 kL and 4,057 kL, respectively (both including 500 mm freeboard).

These ponds will be refurbished to act as an equalisation pond and emergency storage pond. The emergency pond comprises an existing 1.5mm HDPE liner, to conform to the requirements of WQPN26. The equalisation pond will be retrofitted with a new HDPE liner, also to the required standard in protection note WQPN26 (DoW 2013 – synthetic membranes). Both ponds are considered critical containment infrastructure (CCI), and are elevated above natural ground level with raised embankments, to prevent the ingress of stormwater.

Water balance

The abattoir will use about 1,600 kL of water per day for processing, based on estimated consumption of 1,700 L per cattle head and 100 L per sheep, with a production rate of 700 cattle and 4,000 sheep per day, 5 days a week.

Processing water will be supplied to the premises by Harvey Water from the Drakesbrook and Waroona dams. The freshwater will be used for all applications in the facility and then discharged to the wastewater treatment plant. Treated wastewater will be held in the equalisation pond, which is connected to three tanks for off-site discharge (subject to separate EP Act approvals).

Freshwater supplied by Harvey Water will be transported via pipeline to the premises and stored in an existing structure (previously an anaerobic wastewater treatment pond) which will be re-purposed as a 13 ML storage dam. The dam will be lined with a 2 mm thick HDPE liner anchored into the dam perimeter.

- **Equalisation pond**

This pond will be used to balance the flow of wastewater entering the treatment plant. The abattoir will operate 5 days per week, 50 weeks per year; therefore, the flow of wastewater produced in 250 days has been allocated across 365 days for the purpose of demonstrating the water balance and containment is sufficient.

The average required time for equalisation is 12 hours, meaning that during the wetter winter months, the pond can hold the wastewater shown in figure 1 below. The table shows the percentage of the equalisation pond volume using rainfall, evaporation and wastewater input.

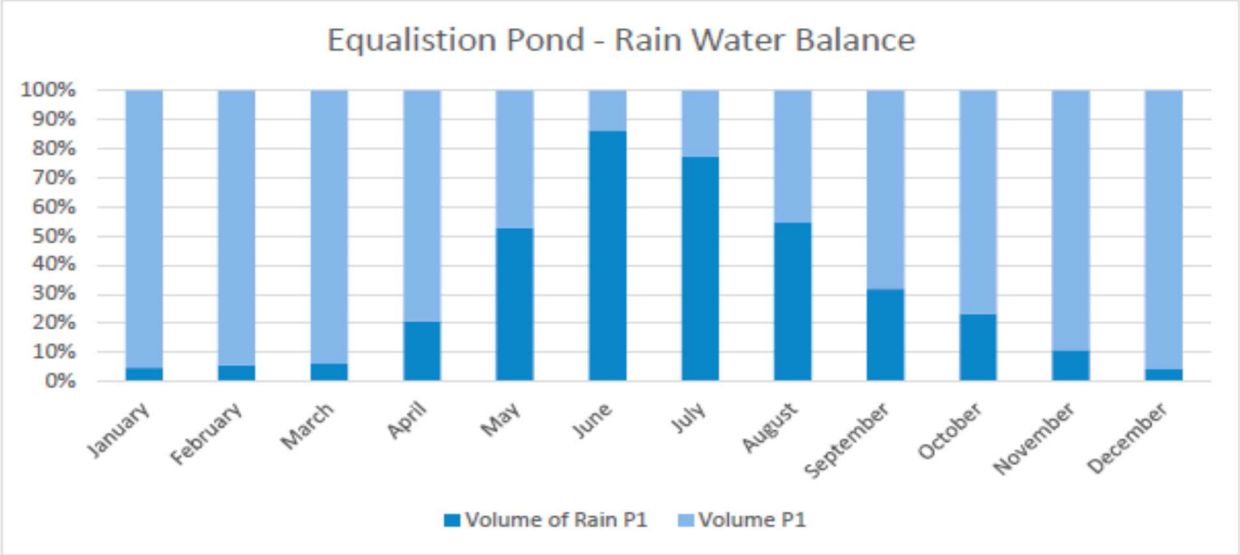


Figure 1: Equalisation Pond water balance

The detailed water balance calculations below indicate the volume of wastewater entering the pond will equal the amount exiting the wastewater treatment plant, assuming acceptable third party off-take arrangements are in place (there will be limited storage capacity on the premises).

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall (mm per month)	11	18	20	56	137	211	189	139	86	63	35	15
Volume of rain (m^3/month)	208	340	378	1,058	2,589	3,988	3,572	2,627	1,625	1,191	662	284
Raw wastewater (m^3/day)[1]	1,075	1,075	1,075	1,075	1,075	1,075	1,075	1,075	1,075	1,075	1,075	1,075
Epan (monthly)	200	200	200	100	80	50	50	70	100	100	200	250
Evap (monthly)	121	121	121	60	48	30	30	42	60	60	121	151
Evap volume (m^3)	1,918	1,918	1,918	959	767	479	479	671	959	959	1,918	2,397
Available volume (m^3)	4,134	5,712	5,674	4,035	2,312	626	1,041	2,178	3,468	3,902	5,390	6,248
Storage (hours)	92	128	127	90	52	14	23	49	77	87	120	140

Note[1]: Total volume distributed across 365 days
Figure 2: Detailed Equalisation Pond water balance

The equalisation pond will include recirculation pumps and a mixing system. This will maintain solids in suspension, which will then be sent to the WWTP for processing. Due to solids separation during treatment and ongoing removal off-site for processing, the applicant expects there to be minimal sludge accumulation in the pond.

- **Emergency pond**

This pond will act as a contingency measure in the case of the equalisation pond overflowing, or if there is excess treated water produced by the WWTP. The pond will (on average) be 35% full of rainwater.

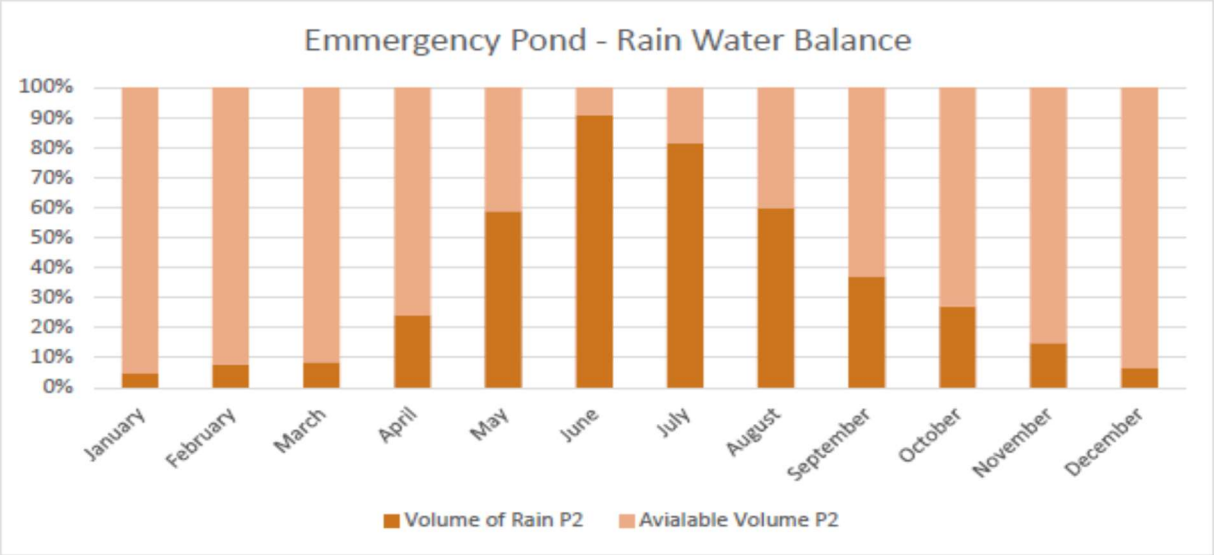


Figure 3: Emergency pond water balance

The detailed water balance calculations below is shown by Figure 4. The amount of surplus water entering the pond was considered zero, to demonstrate the water balance.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
mm per month	11	18	20	56	137	211	189	139	86	63	35	15
Volume of rain (m³/month)	192	315	350	979	2,394	3,688	3,303	2,429	1,503	1,101	612	262
Emergency water (m³/day)[1]	-	-	-	-	-	-	-	-	-	-	-	-
Epan (monthly)	200	200	200	100	80	50	50	70	100	100	200	250
Evap (monthly)	121	121	121	60	48	30	30	42	60	60	121	151
Evap volume (m³)	1,891	1,891	1,891	945	756	473	473	662	945	945	1,891	2,363
Available volume (m³)	3,865	3,742	3,707	3,078	1,663	369	754	1,628	2,554	2,956	3,445	3,795

Note 1: Total volume distributed across 365 days.

Figure 4: Detailed emergency pond water balance

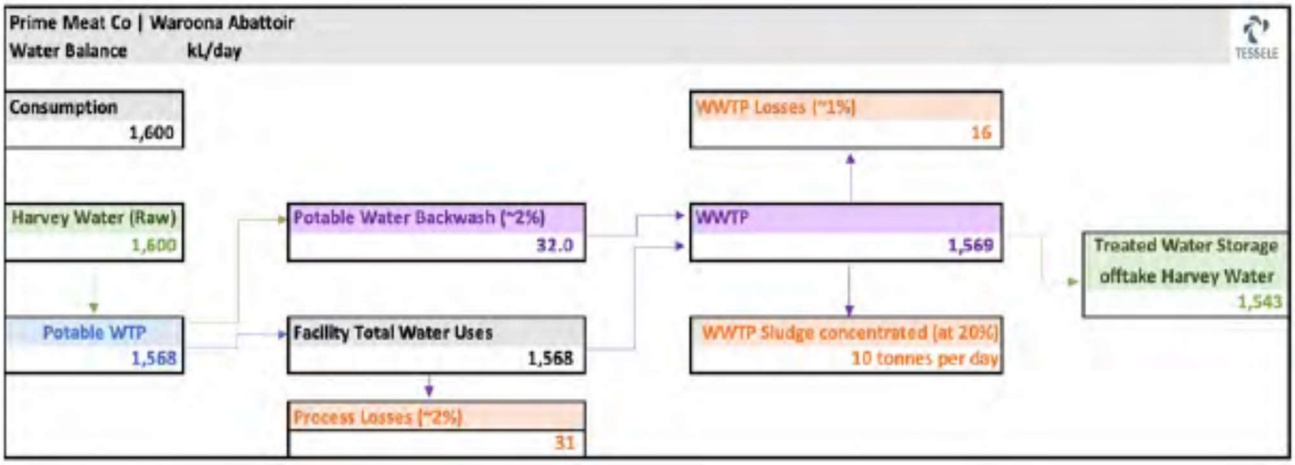


Figure 5: Overall water balance at the premises

Contingency measures

The WWTP is designed with built-in redundancy for critical components, such as pumps and blowers providing stand-by capacity. The equalisation pond will intentionally operate at a lower volume, providing additional water balance controls. In any case where a plant issue cannot be rectified in a timely manner, abattoir production will be reduced to 50% to generate lower

wastewater streams, which can then be stored in the emergency pond. In the extreme case where an issue cannot be rectified, to ensure there is no unauthorised discharge into the environment, production will be stopped until the problem is resolved.

The WWTP is designed to operate 5 days per week, having extra treatment capacity of 40% if it were to be operated for the full 7-day week. This ensures that the equalisation pond volume will be low at the start of each production week.

The WWTP is based on theoretical wastewater quality, with further contingency available if water quality is not achieved. This consists of the installation of a containerised reverse osmosis plant to reduce direct potable reuse quality if necessary.

Solid waste management

All solid wastes will be removed offsite for disposal/processing at appropriately licenced premises. Waste generated from the process includes blood, soft offal, hooves, paunch, heads, fat/solids, bone, hides/skins, lairage manure, screened WWTP solids and dead animals. There will be no disposal of solid wastes on the premises.

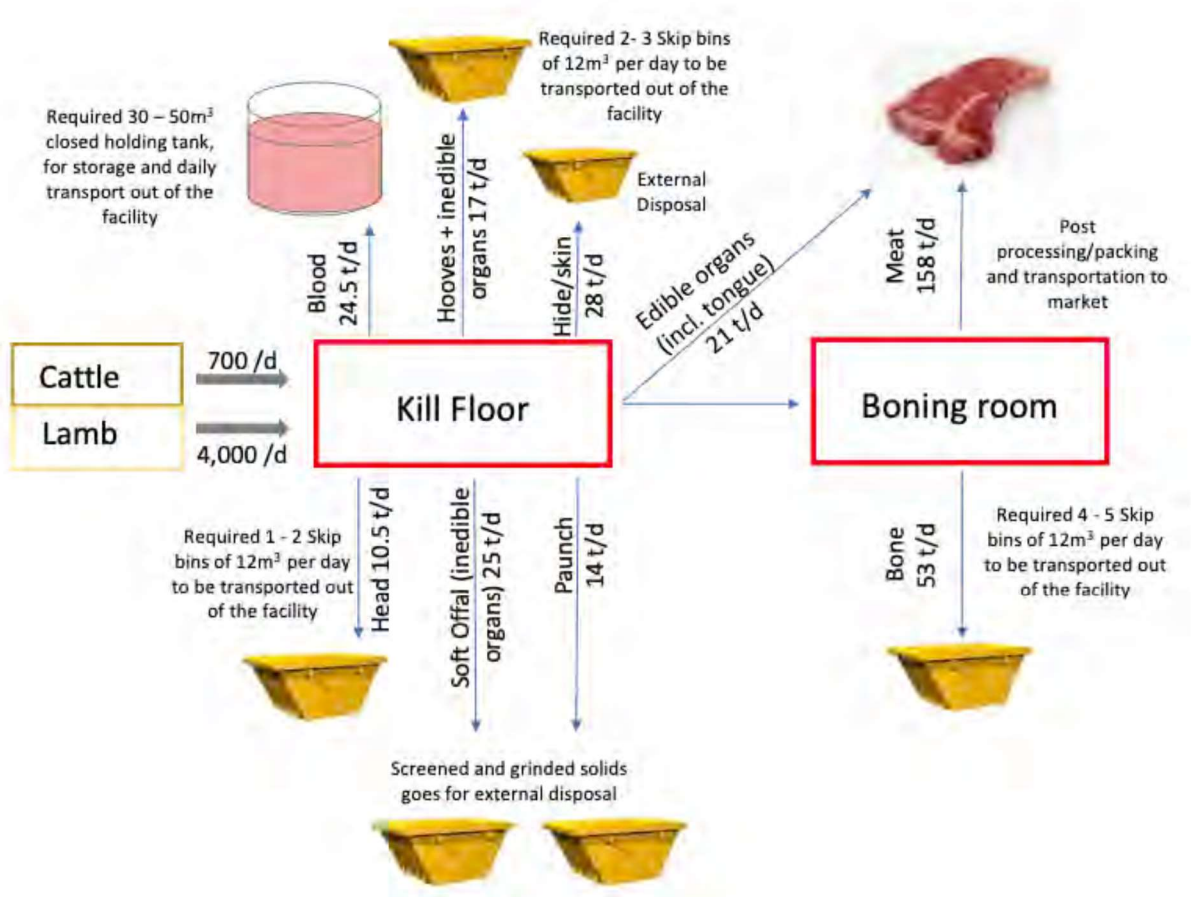


Figure 6: Schematic diagram of solid waste streams from processing on site

Quantities of each waste type generated from the process in Figure 6 are listed in Table 2.

- **Lairage manure** - Manure scraped from the lairage yards is stored on an existing bunded concrete pad (8m x 5m). The manure will be removed off-site a maximum of fortnightly for disposal. All drainage from the pad is captured by drainage channels which are collected in a sump, which feeds into the WWTP. It is estimated that between 1-2t of manure will be generated per day, meaning up to 28t of manure will be stored prior to disposal.
- **Dead animals** - Dead animals will be placed in the quarantine area on impermeable hardstand. When cleared for disposal, the animals will be removed at the end of each daily

shift as needed, off site to a third-party rendering facility.

- **Blood** - Blood will be stored in a 50 m^3 capacity HDPE tank in a bunded concrete pad with sufficient capacity to store 110% of the tank volume. Blood will be transported off-site to a third-party rendering facility daily. The tank and bund will be inspected daily for leaks and spills.
- **Heads, bone, soft offal, hooves & all other inedible organs** - The waste will be transferred from the slaughter facility in covered skip bins to sealed 10-20 tonne tipper trailers. The trailers will be parked on impermeable hardstand with drainage (sump and pump station) connection to the WWTP. The trailers will be collected and replaced on demand as needed. The waste material will be transported off-site to a third-party rendering facility. All trailers and skip bins used for the storage of waste will be inspected weekly to ensure no leaks or spills.
- **Hides & skins** - Hides and skins will be placed in enclosed front lift bins or covered Marrel type skip bins on impermeable hardstand with drainage (sump and pump station) connection to the wastewater treatment plant. The bins will be serviced by a third-party contractor and the skins removed off site for disposal. The waste storage area and skip bins will be inspected daily for leaks and spills.
- **Paunch** - Paunch will be conveyed to the WWTP where the solids will be removed by the primary rotating screen process (see screened wastewater solids). The liquid component will be conveyed to the WWTP.
- **Fats & solids (WWTP)** - Fats from the wastewater treatment plant DAF units will be skimmed and conveyed to covered skip bins stored on impermeable hardstand. The skip bins will be transferred to sealed 10-20 tonne tipper trailers. The trailers will be parked on impermeable hardstand with drainage (sump and pump station) connection to the wastewater treatment plant. The trailers will be collected and replaced on demand as needed. The waste material will be transported off site to a third-party rendering facility. All trailers and skip bins used for the storage of waste will be inspected weekly to ensure no leaks or spills.
- **Screened wastewater solids (WWTP)** - Screened wastewater plant solids from the rotary screen and sludge screw press will conveyed to covered skip bins stored on impermeable hardstand. The skip bins will be removed off site for disposal. All trailers and skip bins used for the storage of waste will be inspected weekly to ensure no leaks or spills.

Table 2: Solid waste volumes

	Waste type	Daily quantity	Infrastructure	Controls	Monitoring	Location[1]
1	Blood	24.5 tonnes	Double skinned tank – 50m^3	Removed off-site for processing daily	Quantity removed from premises	9
2	Soft offal (inedible organs)	25 tonnes	Hopper/covered chute & trailer			7
3	Hooves & other inedible organs	17 tonnes				13
4	Paunch	14 tonnes	WWTP	WWTP		7
5	Heads	11 tonnes	Hopper/covered chute & trailer	Removed off-site for processing daily		13
6	Fat & solids (WWTP)	10-15 tonnes	Hopper/skip bin			12
7	Bone	53 tonnes	Hopper/covered			1

			chute & trailer			
8	Hides & skins	28 tonnes	Hopper/skip bin			10
9	Lairage manure	1-2 tonnes	Bunded concrete pad	Removed every 2-weeks		2
10	Screened wastewater solids	33 tonnes	Skip bin	Removed off-site for processing daily		11
11	Dead animals	As required	Quarantine area	Daily removal off-site for disposal when required		6

Note 1: Refer to map in Appendix 1.

2.3 Assessed throughput

The assessed throughput of the abattoir is 83,500 tonnes per year (hot standard carcase weight, HSCW, which is based on the capacity of the abattoir to slaughter 700 cattle per day (average 380 kg each HSCW) and 4,000 sheep per day (average 17 kg each HSCW), and operating 5 days a week for 50 weeks of the year.

The actual throughput will be the same as the maximum throughput. The rate-limited stage of the process is the wastewater treatment plant, which has been designed based on the above numbers of animals and is supported attachment 8A of the application.

3. Infrastructure

The abattoir infrastructure, as it relates to category 15 activities, is detailed in Table 3.

Table 3: Premises infrastructure

	Infrastructure - Prescribed Activity Category 15
1	**Abattoir operations** • Lairage yards – Paved concrete floor and covered with a metal roof. The floor is a bounded by concrete perimeter drains that convey wastewater to a screened concrete sump and pump station, onto the WWTP. Diversion bunds upslope to divert uncontaminated water away from yards • Slaughter facility - Fully enclosed building with coated concrete floors. Wastewater drainage is connected to the WWTP • Tripe, paunch, and boning rooms - Fully enclosed with coated concrete floors. Wastewater drainage is connected to the WWTP • Blood storage tanks - 1x 50m^3 HDPE tank on bunded concrete pad (capacity to store 110% of tank volume) • Solid waste storage area – impermeable hardstand with drainage to WWTP (via concrete sump and pump station) • Quarantine impermeable hardstand (dead animals)
2	**WWTP** • 1x Anaerobic Tank (Steel epoxy coating) 145 kL capacity • 1x Anoxic Tank (Steel epoxy coating) 728 kL capacity • 1x Aerobic Tank (Steel epoxy coating) 1,863 kL capacity • 1x Tank – Buffer for Filtration (Steel epoxy coating) 35 kL capacity • 1x Tank – Buffer for Ultrafiltration (Steel epoxy coating) 95 kL capacity

	• 1x Tank – Treated Water Storage (Steel epoxy coating) 985 kL capacity • 1x Tank – Treated Water Storage (Concrete) 225 kL capacity • 1x Tank – Treated Water Storage (Concrete) 225 kL capacity • 1x Excess Water Sump (Concrete Tank) 5 kL capacity • Impermeable concrete hardstand • V drains on perimeter to divert stormwater from WWTP
3	**Equalisation pond** • Dimensions: 51.8 m x 30.7 m x 4.5 m Pond area: 1,590 m2 Catchment area: 1,890 m2 Embankment slope: 2.5 V:H Freeboard: 500 mm Operational volume: 4,134 kL Liner: New 1.5 mm HDPE liner laid over existing liner; new liner to conform with the requirements of Water Quality Protection Note (WQPN) 26 Liners for containing pollutants, using synthetic membranes (DoW 2013). **Emergency pond** • Dimensions: 51.4 m x 30.5 m x 4.5 m Pond area: 1,568 m2 Catchment area: 1,748 m2 Embankment slope: 2.5 V:H Freeboard: 500 mm Operational volume: 4,057 kL Existing 1.5 mm HDPE liner repaired to conform with the requirements of WQPN 26.
4	2x Gas-fired (LPG) Bosch Uni-3000-1850 (1,850 kW) water heaters

4. Environmental siting

Land use

The premises are in a predominantly rural agricultural area, with a history of mineral sands mining. Only category 15 activities will be taking place on site, with no solid or liquid waste being proposed or authorised for on-site disposal.

The abattoir is located on the foot slopes of the Darling Scarp with ground elevations ranging from 55 – 90 m AHD from west to east. The area is termed the Ridgehill Shelf and comprises an undulating terrain of palaeo-shoreline and colluvial outwash from the escarpment. This area is the eastern fringe of the Perth Basin in the vicinity of the Darling Fault.

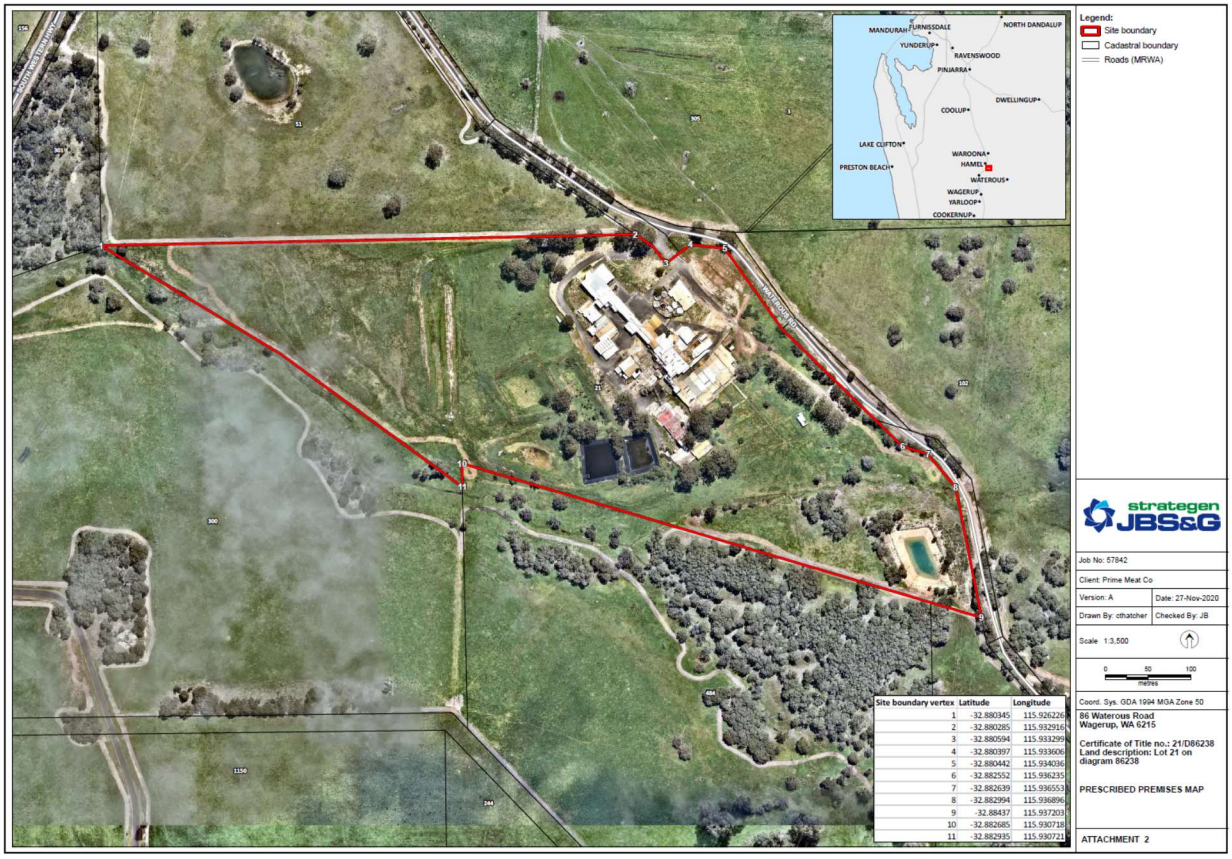


Figure 7: Premise setting

Groundwater monitoring

Four groundwater monitoring bores are installed at the premises and surround the existing wastewater ponds, with screening in the Superficial aquifer to monitor for impacts to shallow groundwater. Bore MW1 is currently blocked and out of service, however the applicant intends to reinstate this bore prior to commencement of operations at the premises. Groundwater monitoring was carried out in November 2019 and in May, August, and November 2020, with the results provided below. The results indicate that groundwater levels are within 2 – 5 metres below ground level, and shallow groundwater flow is in a south-westerly direction.

Location	Date sampled	SWL mbtoc	Dissolved oxygen mg/l	Temperature °C	pH pH Units	Conductivity µS/cm	Redox mV	TDS* mg/L
MW2	15/11/2019	2.394	0.21	19.3	6.9	1289	-93	837.85
	14/05/2020	3.571	1.5	21.6	6.39	1200	33.8	780
	27/08/2020	1.854	9.1	-	6.7	1400	-	910
MW3	15/11/2019	4.447	0.36	20.1	6.51	1709	2.3	1110.85
	14/05/2020	5.856	2.3	20.6	6.20	539.8	112.1	350.87
	27/08/2020	5.171	0.08	19.6	6.29	2373	160.9	104.585
MW4	15/11/2019	2.343	0.15	20.1	6.32	821	-30	533.65
	14/05/2020	3.401	2.0	21.6	6.06	709	112.1	51.35
	27/08/2020	2.666	0.11	19.2	6.07	667	158.7	103.155
*TDS results are approximations based on field EC results: TDS (mg/l) = EC (µS/cm) x 0.65								

Figure 8: Groundwater field parameters

Groundwater concentrations were generally below the adopted criteria set out in figure 9 below, except for total nitrogen which exceeded the long term irrigation guideline of 5 mg/L (DER 2014) in all three wells (highest values recorded in November 2019, MW2 - 61 mg/L; MW3 - 51 mg/L; MW4 - 28 mg/L). No water is proposed to be discharged to land as part of this proposal.

						Chlorinated Benzenes	Non-Metallic Inorganics			Major Anions	Other	Other	VIC - IWRG	
			Sulprofos	Terbufos	TetrachlorvinphosTokuthion	Trichloronate	Hexachlorobenzene	Nitrate & Nitrite (as N)	Total Kjeldahl Nitrogen (as N)	Total Nitrogen (as N)	Phosphate total (as P)	Biochemical Oxygen Demand (BOD-5 Day)	Total Suspended Solids	Organochlorine Pesticides EPAVic	Other Organochlorine Pesticides EPAVic
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L
EQL			0.002	0.002	0.002	0.002	0.002	0.0001	0.05	0.2	0.2	0.01	5	1	1	1
DoH 2014 - Non-Potable Groundwater Use (NPUG)			0.1	0.009												
WA - DER 2014 - Drinking Water Health			**0.01**[#1]	**0.0009**[#1]												
WA - DER 2014 - Long Term Irrigation											5[#2]	0.05[#2]				
Field ID	**Sampled Date**	**Lab Report Number**														
TP2 (MW3)	15/11/2019	688412	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0001	44	17	61	0.02	5	640	<1	<1
TP3 (MW2)	15/11/2019	688412	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0001	<0.05	51	51	0.02	5	13	<1	<1
TP4 (MW4)	15/11/2019	688412	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0001	24	4.4	28.4	<0.01	5	2.7	<1	<1
Statistical Summary																
Number of Results			3	3	3	3	3	3	3	3	3	3	3	3	3	3
Number of Detects			0	0	0	0	0	0	2	3	3	2	3	3	0	0
Minimum Concentration			<0.002	<0.002	<0.002	<0.002	<0.002	<0.0001	<0.05	4.4	28.4	<0.01	5	2.7	<1	<1
Minimum Detect			ND	ND	ND	ND	ND	ND	24	4.4	28.4	0.02	5	2.7	ND	ND
Maximum Concentration			<0.002	<0.002	<0.002	<0.002	<0.002	<0.0001	44	51	61	0.02	5	640	<1	<1
Maximum Detect			ND	ND	ND	ND	ND	ND	44	51	61	0.02	5	640	ND	ND
Average Concentration			0.001	0.001	0.001	0.001	0.001	0.00005	23	24	47	0.015	5	219	0.5	0.5
Median Concentration			0.001	0.001	0.001	0.001	0.001	0.00005	24	17	51	0.02	5	13	0.5	0.5
Standard Deviation			0	0	0	0	0	0	22	24	17	0.0087	0	365	0	0
Number of Guideline Exceedances			0	3	0	0	0	0	0	0	3	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)			0	0	0	0	0	0	0	0	3	0	0	0	0	0

Figure 9: **Groundwater summary table**

5. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway, and impact to receptors in accordance with the *Guideline: Risk Assessments* (DWER 2020a).

To establish a risk event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

5.1 Source-pathways and receptors

5.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises operation which have been considered in this report are detailed in Table 4, which also details the proposed control measures the applicant has proposed to assist in controlling these emissions, where necessary.

5.1.2 Receptors

Table 1 below provides a summary of potential human and environmental receptors that may be impacted because of activities upon or emission and discharges from the prescribed premises *(Guideline: Environmental Siting* (DWER 2020b).

Table 4: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	**Distance from prescribed activity**
Rural residence	275 m SE (650m from abattoir complex)
	975 m SE
Rural residences	480 m; 940 m N
Hamel Town	870 m NW
Waroona Town	2.8 km N
Environmental receptors	**Distance from prescribed activity**
Geomorphic Wetland Multiple Use (Palusplain) ID 15231	50 m W; 400 m N; 690 m SW
Geomorphic Wetland – Multiple Use (Lake) ID 6013	425 m NW

5.2 Consultation

The below table provides a summary of the consultation undertaken by the department.

Table 5: Consultation

Consultation method	**Comments received**
Application advertised on the department's website on 23 February 2021	No comments received
Stakeholder letter sent to DPIRD for comment on 24 February 2021, reply received 15 March 2021	• DPIRD supports the installation of the advanced wastewater treatment system and want to highlight the importance of collaborating with wastewater experts.

	• Controls should be in place to ensure that treated wastewater is not released into the Harvey Water take-off when TN & TP is above the set upper limits. • DPIRD is unable comment on the nutrient aspect of the proposal as no firm limits are given for Total Nitrogen (TN) and Total Phosphorous (TP). DPIRD requests that upper limits be set for TN & TP concentrations in the treated wastewater. • More information is required before providing comment regarding the specific use areas of the treated wastewater as identified by Harvey Water.
Stakeholder letter sent to Shire of Waroona for comment on 24 February 2021, reply received 23 March 2021	• Lot 21 Waterous Road Waroona, which is the site of the current defunct Waroona abattoir premises, is zoned Special Industry under the Shire of Waroona Local Planning Scheme (LPS) 7 • Under this zoning land use and development is restricted to the uses identified on the relevant scheme map. Although not specifically identified on the relevant scheme map (LPS 7 Map 10 – Hamel Townsite), it is understood that under LPS 7, lot 21 has always been identified for use as an abattoir and as such the lot can continue to be used for this purpose, subject to compliance with relevant provisions of the prevailing State and local planning framework that apply to the lot, and compliance with conditions of any subsequent development approvals granted for any future works to the existing premises and any new development upon the lot • Until such time as an application for development approval has been lodged with the Shire of Waroona to recommence the use of the abattoir, the Shire is unable to advise whether the proposed revamped abattoir will be consistent with applicable provisions of the State and local planning framework. To date, the Shire of Waroona has not received an application for development approval from the proponent (or any agent of it) to recommence the use of the abattoir, make improvements to it, and/or for any proposed new development upon the lot, although from previous telephone discussions with Prime Meats Co P/L an application for development approval being lodged to the Shire is anticipated.

5.3 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020a) for each identified emission source and considers potential source-pathway and receptor linkages as identified in Table 3.

Where the applicant has proposed mitigation measures/controls (as detailed in table 3), these have been considered when determining the final risk rating. Where the delegated officer considers the applicant's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the licence as regulatory controls.

Additional regulatory controls may be imposed where the applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 3.

Works approval L6511/2021/1, that accompanies this report, authorises emissions associated with construction and time limited operation at the premises i.e. abattoir; premises on which animals are slaughtered.

The conditions in the issued licence, as outlined in Table 3 have been determined in accordance with *Guideline: Setting Conditions* (DWER 2020b).

Table 6: Risk assessment of potential emissions and discharges during commissioning of WWTP and time limited operations

Risk Event				Consequence rating[1]	Likelihood rating[1]	Risk[1]	Reasoning	Regulatory controls
Source/ Activities	**Potential emissions**	**Potential receptors, pathway and impact**	**Applicant controls**					
Construction works								
Construction and installation of WWTP and relining of ponds	Noise and fugitive dust associated with construction, civil excavation, earthworks, construction works, etc.	Unreasonable interference with the health, welfare, convenience, comfort or amenity of nearby sensitive receptors	Construction activities will occur during normal day-time hours (7am to 7pm) Short-duration, temporary activities (6 weeks for construction) Use of water cart and sprinklers	Low level off-site impacts to amenity **Minor**	The risk event is likely to only occur in exceptional circumstances **Rare**	Acceptable, not subject to controls **Low**	The delegated officer has considered the short-term nature of the works (~6 weeks), that works will be conducted during normal day time hours, and sufficient separation to off-site receptors, and does not reasonably foresee that noise and dust from construction works will impact on off-site receptors.	Works approval controls: None specified
Commissioning works								
Commissioning of WWTP (with water only)	Nil	N/A	N/A	**N/A**	**N/A**	**N/A**	No emissions will be generated during commissioning of the WWTP with potable water. For commissioning with actual wastewater, see risk assessment below.	N/A.
Time limited operation (including commissioning of WWTP with actual wastewater) and full operations								
Commissioning of WWTP (with wastewater, following certification of CCI)	Nutrient-laden wastewater	Leak or spill; seepage to land and direct infiltration causing contamination of groundwater Wetlands 40m W of prescribed premise boundary	Start-up to occur at 25% capacity only as precaution Bunded concrete compound; leak detection system and alarm; wet commissioning (with water) will be completed prior to process commissioning with effluent to capture any issues; regular inspections, monitoring and maintenance of tanks and vessels during commissioning 6 weeks for commissioning, with an additional 3 weeks for performance verification)	Low level on-site impact, minimal off-site impact on local scale **Minor**	The risk event will probably not occur in most circumstances **Unlikely**	Acceptable, generally subject to regulatory controls **Medium**	Wet commissioning will take place over a 6-week period, this time using wastewater from the abattoir, with each piece of equipment tested for 48 hours. Only 25% capacity will be utilised during this period due to the increased risk of using nutrient-laden wastewater, with monitoring taking place to ensure that controls in place are sufficient and equipment is working correctly. Regulatory controls are in place due to the proximity of wetlands 40m W of the prescribed premise boundary.	Works approval controls: Condition 1 (Table 1)
Animal delivery, animal waste and lairage prior to slaughter	Odour from animal waste	Unreasonable interference with the health, welfare, convenience, comfort or amenity of nearby sensitive receptors	Lairage covered and partially enclosed, Manure dry-scraped and collected daily Dead animals quarantined and removed from premises daily	Minimal impact to amenity on local scale **Slight**	The risk event will probably not occur in most circumstances **Unlikely**	Acceptable, not subject to controls **Low**	The delegated officer has considered the location of nearby sensitive receptors and given the prevailing wind conditions, does not reasonably foresee off-site receptors being impacted by odour from animal delivery and lairage operations at the premises.	Works approval controls: None specified
	Noise from heavy haulage delivery and from animals		Lairage covered and partially enclosed. Delivery of animals during daytime hours	Minimal impact to amenity on local scale **Slight**	The risk event will probably not occur in most circumstances **Unlikely**	Acceptable, not subject to controls **Low**	The delegated officer has considered there is sufficient separation in place to nearby sensitive receptors, and given the abattoir operations will be conducted during normal day time hours only, does not reasonably foresee off-site receptors being impacted by noise from operations at the premises.	Works approval controls: None specified
	Dust from vehicle and animal movement		Lairage covered and partially enclosed, external holding pens compacted, water available for dust suppression	Minimal impact to amenity on local scale **Slight**	The risk event will probably not occur in most circumstances **Unlikely**	Acceptable, not subject to controls **Low**	The delegated officer has considered there is sufficient separation in place to nearby sensitive receptors, and therefore does not reasonably foresee off-site receptors being impacted by dust from operations at the premises.	Works approval controls: None specified

	Nutrient-laden wastewater from washdown and contaminated stormwater	Overland runoff to wetlands located at closest point 50 m W, causing surface water contamination Possible direct infiltration causing contamination of shallow groundwater	Concrete yards with all run-off from wash-water directed to drainage connected to the WWTP Animal delivery trucks will not be washed out at the abattoir and will leave the site once the delivery is complete	Mid-level on-site impacts, low-level off-site impacts on local scale **Moderate**	The risk event will probably not occur in most circumstances **Unlikely**	Acceptable, generally subject to regulatory controls **Medium**	Manure from the lairage will dry-scraped and collected daily and stored on a bunded concrete pad prior to removal off-site for disposal. Wash water from the lairage will be contained within a concrete-lined sump, and pumped to the WWTP for treatment. This will ensure the risk of groundwater or surface water contamination from overflow or seepage is acceptable. In accordance with the *Guideline: Risk Assessments* (DWER 2020a), as the proposed controls are critical for maintaining an acceptable level of risk, they will be imposed on the works approval as infrastructure requirements.	<u>Works approval controls:</u> Condition 9 (Table 2)
	Nutrient-laden leachate from stored solid wastes		Manure stored on concrete area with bunding on perimeter to stop stormwater entering area. Removal every 2 weeks	Low level on-site impact, minimal off-site impact on local scale **Minor**	The risk event will probably not occur in most circumstances **Unlikely**	Acceptable, generally subject to regulatory controls **Medium**	Solid wastes will be temporarily stored on an existing impermeable (concrete) bunded pad, prior to off-site removal. Leachates and surface water runoff from the pad will be contained within a concrete-lined sump, and pumped to the WWTP for treatment. This will ensure the risk of groundwater or surface water contamination from overflow or seepage is acceptable. In accordance with the *Guideline: Risk Assessments* (DWER 2020a), as the proposed controls are critical for maintaining an acceptable level of risk, they will be imposed on the works approval.	<u>Works approval controls:</u> Condition 9 (Table 3) Condition 10 (Table 4)
Abattoir operations Solid wastes stored in enclosed hoppers and containers Washdown and water heating Wastewater contained and conveyed to the WWTP	Odour from temporary storage of animal waste, deceased animals	Unreasonable interference with the health, welfare, convenience, comfort or amenity of nearby sensitive receptors	All wastes to be removed off-site as soon as practicable Solid wastes (excluding manure and deceased animals) to be temporarily stored in covered and/or sealed containers	Low level impact to amenity on local scale **Minor**	The risk event could occur at some time **Possible**	Acceptable, generally subject to regulatory controls **Medium**	The delegated officer has considered the proposed management of animal wastes and deceased animals that involves temporary stockpiling and removing from site as soon as practicable, to ensure the risk of off-site odour impacts will be acceptable. In accordance with the *Guideline: Risk Assessments* (DWER 2020a), as the proposed controls are critical for maintaining an acceptable level of risk, they will be imposed on the works approval.	<u>Works approval controls:</u> Condition 9 (Table 3) Condition 10 (Table 4)
	Noise from abattoir operations including machinery and animals		Enclosed buildings, noise enclosures on air compressors	Minimal impact to amenity on local scale **Slight**	The risk event will probably not occur in most circumstances **Unlikely**	Acceptable, not subject to controls **Low**	The delegated officer has considered there is sufficient separation in place to nearby sensitive receptors, and given the abattoir operations will be conducted during normal day time hours only, does not reasonably foresee off-site receptors being impacted by noise from operations at the premises.	<u>Works approval controls:</u> None specified.
	Gaseous & particulate emissions from 2x gas boilers		1x (LPG) burner operational at any one time High-efficiency burners with low emissions (CO and NOx).	Low level impact to amenity on local scale **Slight**	The risk event may only occur in exceptional circumstances **Rare**	Acceptable, not subject to controls **Low**	N/A – Separation distance, brand new high-efficiency burners with low emissions (CO and NOx).	<u>Works approval controls:</u> None specified
	Nutrient-laden wastewater from washdown and contaminated stormwater	Overland runoff to wetlands located at closest point 50 m W, causing surface water contamination Possible direct infiltration causing contamination of shallow groundwater	Wastewater contained within bunded hardstand areas and drained to WWTP	Mid-level on-site impacts, low-level off-site impacts on local scale **Moderate**	The risk event will probably not occur in most circumstances **Unlikely**	Acceptable, generally subject to regulatory controls **Medium**	Abattoir operations produce a range of wastewaters from wash down to accidental spills and leaks. All processing operations are conducted within enclosed buildings with sealed concrete floors. All wash waters and spills and leaks will be contained within bunded concrete floors and directed to internal drains that are connected to the wastewater treatment system, thereby minimising the risk of wastewaters entering the environment. In accordance with the *Guideline: Risk Assessments* (DWER 2020a), as the proposed controls are critical for maintaining an acceptable level of risk, they will be imposed on the works approval as infrastructure requirements.	<u>Works approval controls:</u> Condition 9 (Table 3)
	Waste & leachate from waste containment such as blood, manure, solid waste for off-site rendering/processing, etc.		Wastes stored in enclosed hoppers Containers and tanks in controlled drainage areas with concrete flooring solid waste removed from premises daily (other than manure) Manure removal every 2 weeks	Mid-level on-site impacts, low-level off-site impacts on local scale **Moderate**	The risk event will probably not occur in most circumstances **Unlikely**	Acceptable, generally subject to regulatory controls **Medium**	Abattoir operations produce various waste streams that if not managed and contained appropriately, can cause an unauthorised discharge into the environment. Wastes are proposed to be stored in enclosed hoppers, with containers and tanks in controlled (bunded) concrete floored drainage areas that report to the WWTP. Solid waste will be removed from premises daily. To ensure an acceptable level of risk if maintained during operations, controls will be imposed on the works approval to specify infrastructure requirements for containing abattoir waste streams.	<u>Works approval controls:</u> Condition 9 (Table 3) Condition 10 (Table 4)
Wastewater	Odour from WWTP and	Unreasonable interference with the	Pre-treatment to remove solids and fats; enclosed	Low level impact to	The risk event will probably not	Acceptable, not subject to	Due to the nature of abattoir operations, there is an inherent risk of odour causing impacts to off-site receptors. In DWER's experience,	<u>Works approval controls:</u>

treatment plant Treatment and storage of wastewater Storage of wastewater in ponds prior to be taken off-site (no discharge)	ponds	health, welfare, convenience, comfort or amenity of nearby sensitive receptors	tanks and vessels; jet-mixers in equalisation pond to prevent anaerobic conditions, solid waste, and sludge stored in enclosed bins, waste removed from site daily.	amenity on local scale **Minor**	occur in most circumstances **Unlikely**	controls **Low**	the primary source of odour from abattoirs relate to large, biological pond based treatment systems. The delegated officer notes the applicant proposes to treat wastewater using a predominantly enclosed tank-based system, with external ponds being used for equalisation and temporary storage of treated wastewater only. Primary wastewater temporarily stored in the equalisation pond will be kept aerated to prevent anaerobic conditions, prior to entry to the WWTP. Final treated wastewater, which will have been micro-filtered and disinfected to potable standards, is unlikely to produce significant odour. In the event of unplanned issues with the WWTP, the level of odour generated is unlikely to result in significant off-site impacts, based on the location of nearby sensitive receptors and local prevailing wind conditions. The delegated officer therefore does not reasonably foresee off-site receptors being impacted by odour from WWTP operations at the premises. In accordance with the *Guideline: Risk Assessments* (DWER 2020a), as the proposed controls are critical for maintaining an acceptable level of risk, they will be imposed on the works approval as infrastructure requirements.	
	Nutrient-laden wastewater, contained within WWTP and equalisation pond	Overland runoff to wetlands located at closest point 50 m W, causing surface water contamination Possible direct infiltration causing contamination of shallow groundwater	Wastewater treatment plant in bunded concrete compound; leak detection system and alarm; regular inspection and maintenance of tanks and vessels Ponds lined with HDPE liners, groundwater monitoring program, periodic inspection of pond liners (~5 year intervals) Sufficient pond capacity for foreseeable normal operation, maintenance of 500 mm freeboard, pond embankments to prevent stormwater ingress Quarterly groundwater monitoring of bores MW1 – MW4	Mid-level on-site impacts, low level off-site impact on local scale **Moderate**	The risk event will probably not occur in most circumstances **Unlikely**	Acceptable, generally subject to regulatory controls **Medium**	The proposed WWTP will be constructed in an existing bunded concrete-lined compound. Tanks will comprise leak detection systems and high-level alarms, and the applicant proposes to conduct regular inspection and maintenance of tanks and vessels. The equalisation pond and treated storage pond, will be recommissioned with a 1.5 mm HDPE liner to minimise seepage. Both these ponds are considered to be Critical Containment Infrastructure, as they will be used to contain high strength wastewater. The applicant proposes to operate the ponds with a minimum 500 mm freeboard, in addition to routine monitoring of groundwater levels and quality in bores surrounding the ponds, to enable early detection and proactive management of potential groundwater contamination. With the above controls in place, the delegated officers considers there to be an acceptable level of risk in terms of surface water and groundwater contamination. In accordance with the *Guideline: Risk Assessments* (DWER 2020a), as the proposed controls are critical for maintaining an acceptable level of risk, they will be imposed on the works approval as infrastructure and operational requirements.	<u>Works approval controls:</u> Condition 4 (Table 2) Condition 9 (Table 3) Condition 14 (Table 5)

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the Guideline: Risk Assessments (DWER 2020a)

6. Decision

The delegated officer has determined the proposal to reopen the Waroona abattoir, which includes constructing a new wastewater treatment plant and re-lining existing wastewater ponds, does not pose an unacceptable risk of impacts to on- and off-site receptors. This determination is based on the following:

- the existing wastewater treatment plant will be replaced by a new advanced wastewater treatment plant; and
- the existing wastewater storage ponds will be relined and recommissioned as critical containment infrastructure; and
- construction and installation works will be conducted over a short duration and during normal day time hours, minimising impacts on off-site receptors.

The delegated officer is satisfied the above engineering controls lower the overall risk profile of the premises, in addition to the proposal that all solid and liquid wastes will be taken off-site for disposal, i.e. no solid or liquid wastes will be disposed on the premises.

6.1 Works approval and licence

Works approval W6511/2021/1 that accompanies this report authorises construction and installation work only. The conditions in the issued approval, as outlined in the above risk table, have been determined in accordance with the *Guideline: Setting conditions* (DWER 2020b).

Final approval will only be granted following confirmation that approval under local planning laws has been granted by the Shire of Waroona.

A licence is required to authorise emissions associated with the operation of the premises, i.e. abattoir operations. A risk assessment for the operational phase has been included in this report, however licence conditions will not be finalised until the department assesses the licence application. Conditions will be imposed to ensure day-to-day operations do not pose an unacceptable risk of impacts to on- and off-site receptors.

6.2 Consultation

Applicant was provided with draft documents on 25 March 2021. A reply was received 19 April 2021, with mostly administrative changes identified.

A request to replace the specification of ‘licensed professional engineer’ with ‘suitably qualified person’ was made, due to the former being unclear and potentially restrictive based on the requirement to hold a Bachelor of Engineering. The delegated officer has determined to amend this to a ‘suitably qualified engineer’ as being a ‘person who holds a tertiary academic qualification in engineering and has a minimum of 5 years’ experience working in their area of expertise’.

A request was also made to remove the requirement to monitor for metals and metalloids, specifically arsenic, mercury and zinc, in groundwater. The delegated officer has determined to remove mercury and zinc, however has retained the requirement to monitor for arsenic, as there is clear evidence from other wastewater sites this element will be mobilised from soil by high BOD wastewater and monitoring would serve as an indicator of pond leakage.

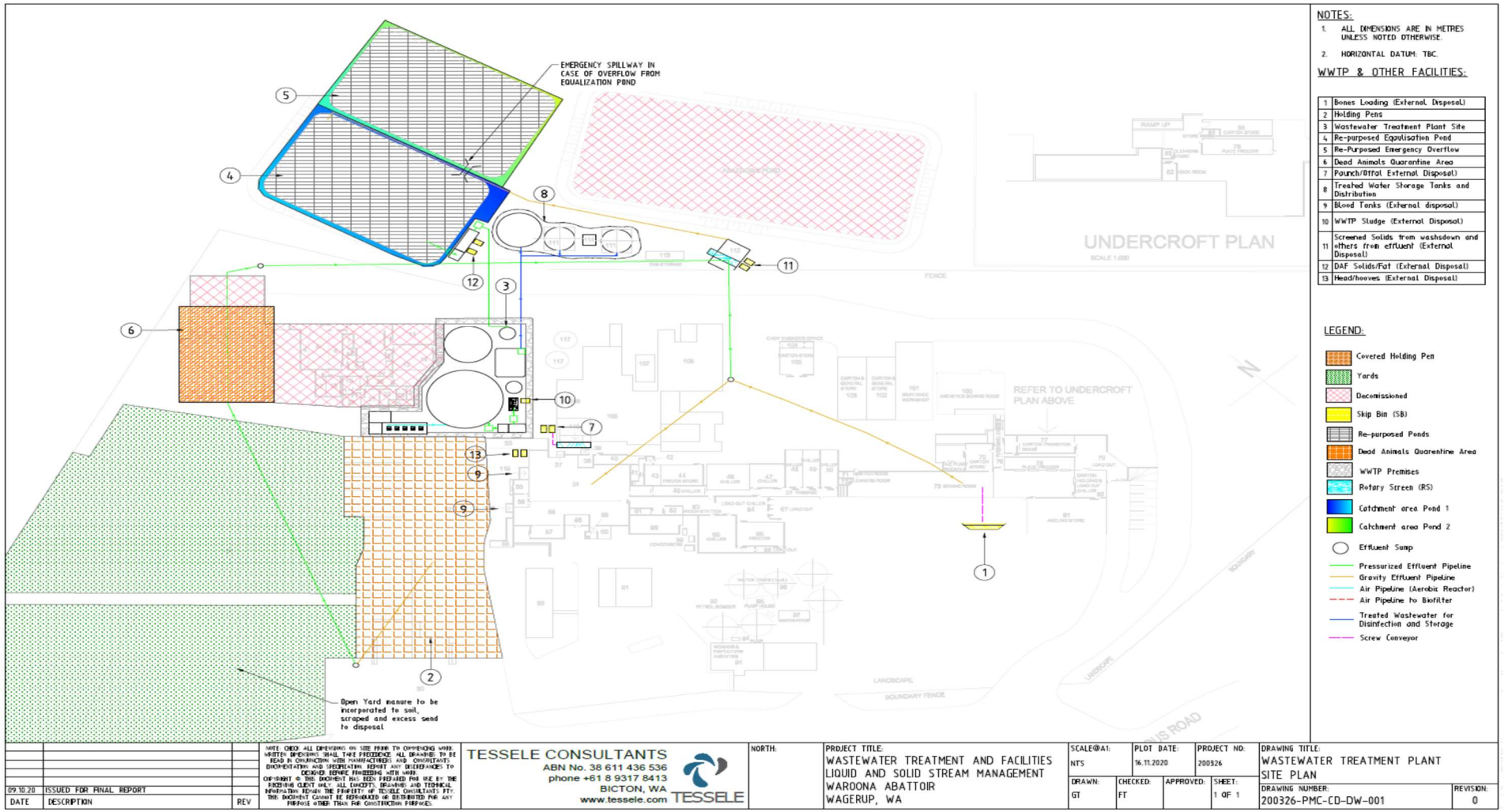
7. Conclusion

Based on this assessment, it has been determined to grant a works approval for operation, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

8. References

1. Department of Environment Regulation (DER) 2016, *Guidance Statement: Environmental Siting*, Perth, Western Australia
2. DER 2020a, *Guidance Statement: Risk Assessments*, Perth, Western Australia
3. DER 2020b, *Guidance Statement: Setting Conditions*, Perth, Western Australia
4. ANZECC & ARMCANZ (2000) water quality guidelines

Appendix 1: Location of infrastructure



Appendix 2: Application validation summary

VALIDATION CHECKLIST: WORKS APPROVAL, LICENCE, REGISTRATION, AND AMENDMENT APPLICATIONS

Roles and Responsibilities for validation of works approval and/or licensing applications:

Licensing Officer: you are to validate the application package to ensure that information provided is complete and accurate. In order to complete this task, you must complete Sections 1, 2, 3 and 4. If further information is required from the applicant during validation then complete Section 6.

Delegated Officer: you are to check that the validation has been undertaken appropriately and endorse that there is sufficient information to commence assessment. In order to complete this task, you must review Sections 1, 2, 3 and 4 and complete Section 5. If the Licensing Officer has determined that further information is required you must also review Section 6.

SECTION 1: APPLICATION SUMMARY		
Application type		
Works approval	☒	
Date application received		30 November 2020
Applicant and Premises details		
Applicant name/s (full legal name/s)		Prime Meat Co Pty Ltd
Premises name		Waroona Abattoir
Premises location		86 Waterous Road WAGERUP WA 6215
Local Government Authority		Shire of Waroona
Application documents		
HPCM file reference number:		DER2018/001042-4-45
Key application documents (additional to application form):		• **Works Approval Application (JBS&G Strategen):** 3B - Premises activities 6A – Emissions and discharges 7 – Siting and location (including hydrology and groundwater) • **Wastewater treatment plant commissioning plan** • **8A – Final Report Wastewater Treatment Plant Waroona Abattoir (JBS&G Strategen)**
Scope of application/assessment		

Summary of proposed activities or changes to existing operations.	**Works approval application - Construction of a wastewater treatment plant** Prime Meat Co Pty Ltd (the applicant) owns an abattoir (the premises) located at 86 Waterous Road in Wagerup. The premise has been non-operational since 2009 and is currently in 'care and maintenance'. The applicant wishes to reopen the premises, aiming to process approximately 4,000 sheep and 700 cattle per day, five days a week. Initial production is expected to start at a throughput of approximately 25% of total capacity (1,000 sheep and 175 cattle per day), full capacity being reached after six months. The premises previously operated under Licence L8230/2008/1 (the previous licence) issued to South West Meat Processors Pty Ltd on 26 June 2008 and expired on 29 June 2011. The application is for a Category 15 (Abattoir) activity only. This works approval is for the construction of a new wastewater treatment plant and refurbishment of two holding ponds. Following construction, the applicant is proposing to use pre-existing infrastructure for ongoing operations. The premises will slaughter sheep and cattle for meat production and will operate for 10 hours a day (07:00 to 17:00), five days a week, 50 weeks a year with a production capacity of approximately 86,500 tonnes per year (hot standard carcase weight). The proposal involves no on-site discharge with all waste to be contained on-site prior to being disposed off-site, with paunch the only exception which will be diverted to the WWTP. Daily wastewater volume generated by the facility considered in the design is 1,600kL. The proposed WWTP system includes secondary and tertiary treatment followed by membrane filtration and multi-barrier disinfection and polishing to produce high-quality recycled water. The treated effluent will be directed to a polishing system to provide quality of recycled water in accordance with the 'Medium risk' category from the Department of Health (DoH 2011) guidelines for offtake by Harvey Water for uses including urban irrigation (golf courses, recreation areas), firefighting storage, fountains, and water features, and agricultural and horticultural (orchards) use.

Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

Prescribed premises category and description	Proposed production or design capacity
Category 15: Abattoir: premises on which animals are slaughtered.	83,5000 tonnes per year (needs to be confirmed within RFI due to discrepancy in earlier figures). Based on 700 cattle per day at 380 kg per animal hot standard carcase weight (HSCW) and 4,000 sheep per day at 17 kg HSCW; abattoir operating 250 days per year (calculations provided by applicant).

Legislative context and other approvals		
Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes ☐ No ☒	Referral decision No: Managed under Part V ☐ Assessed under Part IV ☐
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes ☐ No ☒	Ministerial statement No: EPA Report No:
Has the proposal been referred and/or assessed under the EPBC Act?	Yes ☐ No ☒	Reference No:
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes ☒ No ☐	General lease ☒ Expiry: Indefinate Applicant has lease agreement with land-owner Harvest Hill Co Pty Ltd (HHC) Certificate of title ☒ (HHC) Lot 21 on Diagram 86238 (reg no. 21/D86238) Volume 250 Folio 591 86 Waterous Road, Wagerup, Waroona
Has the applicant obtained all relevant planning approvals?	Yes ☒ No ☐ N/A ☐	Approval: TBC Expiry date: TBC Submitted, currently awaiting reply from LGA.
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes ☐ No ☒	CPS No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes ☐ No ☒	Application reference No: N/A Licence/permit No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes ☐ No ☒	Licence / permit not required. Processing water will be scheme water supplied by Harvey Water.

Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes ☐ No ☒	Name: N/A Has Regulatory Services (Water) been consulted? Yes ☐ No ☐ N/A ☒
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes ☐ No ☒	Name: N/A Priority: N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)? Yes ☐ No ☐ N/A ☒
Is the Premises subject to any other Acts or subsidiary regulations (e.g. *Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx*)	Yes ☐ No ☒	N/A
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes ☐ No ☒	N/A – site is located just outside of the Peel Harvey Estuary EPP area
Is the Premises subject to any EPP requirements?	Yes ☐ No ☒	N/A
Is the Premises a known or suspected contaminated site under the *Contaminated Sites Act 2003*?	Yes ☐ No ☒	Contaminated sites database checked 14/12/2020