Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L6395/1993/16
Licence holder	Harvey Industries Group Pty Ltd
ACN	117 597 985
Registered business address	The Swan, 171-173 Mounts Bay Rd PERTH WA 6000
DWER file number	DWERVT15365
Duration	15/09/2015 to 14/09/2030
Date of issue	10/09/2015
Date of amendment	17/09/2024
Premises details	Harvey Beef Abattoir Seventh Street HARVEY WA 6220 Legal description – Lot 3 on Diagram 70328, Lots 105, 106, 107 and 113 on Plan 202106, Lots 114, 115, 116, 117, 118, 119, 139, 140, 141, 142, 143, 145, 147, 149, 168, 170, 171, 172, 173, 174, 175, 177, 200, 201, 202, 203, 204, 205, 228, 229, 230, 231 and 232 on Plan 2492, Lot 18 on Plan 883, Lot 239 on Plan 206741, Lots 235 and 236 on Plan 29898, and Lots 400 and 401 on Plan 302521

Prescribed premises category description (Schedule 1, Environmental Protection Regulations 1987)	Assessed production capacity
Category 15 Abattoir: premises on which animals are slaughtered.	Not more than 192,000 tonnes (hot standard carcass weight) of cattle slaughtered per annual period
Category 16 Rendering operations: premises on which substances from animal material are processed or extracted.	Not more than 120,000 tonnes of animal material rendered per annual period
Category 55: Livestock saleyard or holding pen: premises on which live animals are held pending their sale, shipment or slaughter.	Not more than 300,000 animals (cattle) per annual period
Category 83: Fellmongering: premises on which animal skins or hides are dried, cured or stored.	Not more than 300,000 animal skins processed (salting) per annual period

This amended licence is granted to the licence holder, subject to the attached conditions, on 17 September 2024, by:

Caron Goodbourn
Digitally signed by Caron Goodbourn
Date: 2024.09.17 10:33:40 +08'00'

MANAGER, PROCESS INDUSTRIES
STATE-WIDE DELIVERY

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Licence history

Date	Ref number	Summary of changes
10/09/2015	L6395/1993/16	Licence renewal
29/04/2016	L6395/1993/16	Notice of Amendment of Licence Expiry Dates – extended Licence expiry date to 14 September 2030
10/11/2016	L6395/1993/16	Amendment Notice 1 Licence holder-initiated amendment to amend conditions relating to the management of treated wastewater within the irrigation area, nutrient loading rates, management of wastewater storage ponds, notification requirements, administrative changes, and updated plan of premises.
5/04/2019	L6395/1993/16	Licence holder-initiated amendment to include an additional irrigation area, administrative changes, update to new format licence and consolidate changes made in Notice of Amendment of licence Expiry Dates and Amendment Notice 1.
10/02/2020	W6291/2019/1	Works approval to construct the CAL, boiler, and flare infrastructure.
08/04/2020	L6395/1993/16	Licence holder-initiated amendment to increase Category 55 from 170,000 to 250,000 animals (cattle) per annual period.
17/12/2021	L6395/1993/16	Licence holder-initiated amendment to operate the CAL, boiler and flare constructed under W6291/2019/1.
17/04/2024	L6395/1993/16	Licence holder-initiated amendment to increase number of cattle held and then processed through the abattoir, increase amount of animal material to be accepted for rendering, construction of new rendering facility, new biofilters, new gas power plant, new concrete pad for biosolids dewatering, add the salting of up to 300,000 cattle hides per annual period and increase the irrigation area.
23/08/2024	L6395/1993/16	CEO-initiated amendment to specify off-site removal of wastes to licensed facilities and correct typographical errors.
17/09/2024	L6395/1993/16	Licence holder-initiated amendment to extend the installation date for groundwater monitoring bores MW04 and MW05 and update registered business address.

Interpretation

In this licence:

(a) the words ‘including’, ‘includes’ and ‘include’ in conditions mean ‘including but not limited to’, and similar, as appropriate;

(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;

(d) any reference to an Australian or other standard, guideline or code of practice in this licence:

  (i) if dated, refers to that particular version; and

  (ii) if not dated, refers to the latest version and therefore may be subject to change over time;

(e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and

(f) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This licence requires specific conditions to be met but does not provide any implied

authorisation for other emissions, discharges, or activities not specified in this licence.

Licence conditions

The licence holder must ensure that the following conditions are complied with:

Works – Construction

1. The licence holder must ensure that the site infrastructure listed in Table 1 and located at the corresponding infrastructure location is constructed and/or installed in accordance with the corresponding design, construction and installation requirements set out in Table 1.

Table 1: Infrastructure construction requirements

Infrastructure		Requirements (design and construction)	Infrastructure location	Completion date
1.	Rendering facility (assessed production capacity of up to 140,000 tonnes of animal material rendered per annual period)	(a) Fully enclosed stainless-steel bin(s)/container(s) for the storage of renderable material prior to rendering. (b) The bin(s)/container(s) referred to in section (a) must be able to obtain negative pressure with odour extraction to a biofilter. (c) Have fully enclosed pipeline for the transfer of renderable material from the abattoir onsite. (d) Have a sealed building shell, able to obtain negative pressure, directing process exhaust airs and odours to a biofilter. (e) Facility to be located over a concrete hardstand. (f) Facility to be constructed such that clean stormwater is segregated from potentially contaminated runoff.	Labelled as By-Products Facility in Schedule 1, Figure 8, Proposed infrastructure	Before 31 December 2026
2.	Two biofilters	(a) Each biofilter to be constructed with sprinklers or sprayers to manage moisture levels during operation. (b) Have perforated pipes, a plenum chamber or similar to enable air to be evenly distributed through the biofilter. (c) Have a leachate collection system to collect and direct liquids from the filter medium to the existing wastewater treatment system.	Labelled as New Biofilters in Schedule 1, Figure 8, Proposed Infrastructure	Before 31 December 2026

2. The licence holder must, within 30 days of the infrastructure specified in condition 1 being constructed:

(a) undertake an audit of their compliance with the requirements of condition 1; and
(b) prepare and submit to the CEO a report on that compliance.

3. The report required by condition 2, must include as a minimum:

(a) certification whether the items of infrastructure or component(s) thereof, as specified in condition 1, have been constructed in accordance with the relevant

requirements specified in that condition;

(b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 1; and

(c) be signed by a person authorised to represent the licence holder and contains the printed name and position of that person.

4. Subject to condition 3(a), where an item of infrastructure or component of infrastructure has been certified as not being constructed, or does not comply with the corresponding requirements, or contains material defects, the licence holder must:

(a) correct the non-compliant or defective works, prior to re-certifying in accordance with condition 3(a); or

(b) provide to the CEO a description of, and explanation for, any departures from the requirements listed in Table 1 that do not require rectification and do not constitute a material defect , along with the report required by condition 2.

Works – Infrastructure operations

5. The licence holder may only commence operations for infrastructure identified in condition 1 where the report as required by condition 2 has been submitted by the licence holder to the CEO.

6. During operations, the licence holder must ensure that the premises infrastructure and equipment listed in Table 2 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 2.

Table 2: Infrastructure and equipment requirements

Site infrastructure and equipment		Operational requirements	Infrastructure location
1.	Rendering facility	(a) All wastewater to be directed to the anaerobic pond (via the Save All). (b) All gases generated from the cookers to be captured and emitted to air through an operational biofilter. (c) In the event of plant failure or breakdown of any part of the rendering plant process (e.g. cooker or blood drier) that is likely to immediately or subsequently lead to a change in emissions or discharges from the premises, the licence holder must immediately cease the addition of material into the following: (i) rendering plant cooker(s); (ii) meat milling area; and (iii) blood drier. (d) In the event of plant failure or breakdown of any part of the rendering plant process (e.g. cooker or blood drier) for more than twenty-four (24) hours the licence holder must: (i) direct renderable material to another licensed rendering facility; and/or (ii) direct renderable material to a licensed landfill site that is authorised to accept that type of waste for disposal; and (iii) advise the CEO in writing of the adopted option, prior to the renderable material leaving the premises.	Labelled as By-Products Facility in Schedule 1, Figure 8: Proposed Infrastructure

Site infrastructure and equipment		Operational requirements	Infrastructure location
2.	Biofilters	(a) Moisture levels to be maintained to enable a suitable operating environment for the microorganisms. (b) To be maintained to allow the even distribution of air from the perforated pipes or plenum chamber through the filter medium. (c) Leachate collection system to collect and direct any leachate from the filter medium to the wastewater treatment system.	Labelled as New Biofilters in Schedule 1, Figure 8, Proposed Infrastructure

Works – Groundwater monitoring wells

7. The licence holder must install two groundwater monitoring wells in accordance with the requirements in Table 3.

Table 3: Infrastructure requirements – groundwater monitoring wells

Infrastructure	Design, construction and installation requirements	Timeframe
Groundwater monitoring bores (MW04 and MW05)	At least two new groundwater monitoring bores installed to meet the requirements of *Minimum Construction Requirements for Water Bores in Australia* (NUDLC, 2020) with the following requirements: (a) be sited in the approximate locations as shown in Schedule 1, Figure 6: Groundwater Monitoring Well Locations; and (b) each groundwater monitoring bore must be constructed with a screened interval from approximately 1 m above the water table to a depth of 3 to 6 m below the water table.	By **31 December 2024**

8. The licence holder must within 30 days of the groundwater monitoring bores being constructed:

(a) undertake an audit of their compliance with the requirements of condition 7; and
(b) prepare and submit to the CEO an audit report on that compliance.

9. The report required by condition 8 must:

(a) certify that the works were constructed in accordance with the design, construction and installation requirements as specified in condition 8 and specify the completion dates for the corresponding infrastructure works completed;
(b) include photographs of all new infrastructure installed;
(c) be signed by the person authorised to represent the licence holder and contain the printed name of that person within the company; and
(d) include copies of the bore logs recorded at the time of installation of each groundwater monitoring bore, to include as a minimum the following:
    (i) GPS coordinates of bore location;
    (ii) start and finish dates of installation;
    (iii) type of drilling method used;
    (iv) diameters and depth of hole drilled;
    (v) complete strata details to include:
        a. well completion diagram;
        b. lithological description, including strata depths;
        c. standing water level; and
        d. drilling penetration rates;
    (vi) casing details to include:

a. type and diameter;
b. class of pipe and/or wall thickness; and
c. position within the hole and how it is secured and sealed;

(vii) slotted screening details to include:

a. length of slotted section and location
b. screen type, dimensions and location; and
c. the gravel pack material and size;

(viii) bore development procedure and record, including total drilled depth; and
(ix) surveyed height (AHD) of each bore.

Works – Decommissioning

10. The licence holder must decommission the existing rendering facility, labelled as Abattoir Rendering Facility in Schedule 1, Figure 4, within 180 days of the infrastructure required by condition 1 being operational[1].

Note 1: Operational means being able to commence operations in accordance with condition 5.

Infrastructure and equipment

11. The licence holder must ensure that the site infrastructure and equipment listed in Table 4 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in that table.

Table 4: Infrastructure and equipment requirements

Site infrastructure and equipment		Operational requirements	Infrastructure location
Abattoir and rendering			
1.	Abattoir and rendering facility- within an enclosed building with concrete flooring and drainage.	(a) All wastewater to be directed to the anaerobic pond (via the Save All). (b) All gases generated from the cookers to be captured and emitted to air through an operational biofilter. (c) In the event of plant failure or breakdown of any part of the rendering plant process (e.g. cooker or blood drier) that is likely to immediately or subsequently lead to a change in emissions or discharges from the premises, the licence holder must immediately cease the addition of material into the following: (i) rendering plant cooker(s); (ii) meat milling area; and (iii) blood drier; (d) In the event of plant failure or breakdown of any part of the rendering plant process (e.g., cooker or blood drier) for more than twenty-four (24) hours the licence holder must: (i) direct renderable material to another licensed rendering facility, and/or; (ii) direct renderable material to a licensed landfill site that is authorised to accept that type of waste for disposal; and (iii) advise the CEO in writing of the adopted option, prior to the renderable material leaving the premises.	Labelled as boning room, slaughter floor, cooker, blood tank and drier, boiler and boiler stack and biofilters shown in Schedule 1, Figure 2: Site Layout. Biofilters shown in Schedule 1, Figure 4: Monitoring Locations and Main Site Features

Site infrastructure and equipment		Operational requirements	Infrastructure location
Wastewater treatment			
2.	Wastewater treatment system comprising of the following ponds: • Anaerobic pond • RENOIR pond – compacted clay lined with HDPE lining up to the phreatic surface; • Wastewater storage ponds 3, 4, 5 and 6- compacted clay liner • CAL - Covered 24 ML capacity anaerobic lagoon (approximately 70 m by 110 m by 6 m high) lined with two, one 2 mm and one 1.5 mm thick, HDPE liners on the base and walls - hydraulic conductivity less than 1 x 10-9 m/s.	(a) Anaerobic pond must not be used to store or treat wastewater. (b) Wastewater from the RENOIR pond to only be directed to wastewater storage pond 5; (c) Stormwater runoff resulting from site drainage shall be prevented from entering the ponds or causing the erosion of the outer pond embankment; (d) Overtopping of the ponds into the environment does not occur; (e) There is no discernible seepage loss from the ponds; (f) With the exception of the anaerobic pond, vegetation and floating debris (emergent or otherwise) does not encroach onto pond surfaces or inner pond embankments; (g) Trapped overflows are maintained on the discharge from all ponds to prevent carry-over of surface floating matter to subsequent ponds; and (h) A minimum 300 millimetre freeboard is maintained at all times. (i) Sampling points at P3B and P6A must be operated and maintained to allow for periodic sampling of wastewater. <u>CAL:</u> (j) Freeboard of at least 500 mmm must be maintained; (k) Level sensors and alarms to be operated and maintained in operational condition; (l) Stormwater runoff shall be prevented from entering the CAL or causing erosion of the outer pond embankment, and (m) Always maintain an adequate level of water in the CAL to ensure that any upward hydrostatic pressure does not compromise the HDPE liners.	Labelled as anaerobic pond, RENOIR pond, CAL Pond, pond 3, pond 4, pond 5 and pond 6 shown in Schedule 1, Figure 4: Monitoring Locations and Main Site Features Labelled as RENOIR pond, pond 1, pond 3, pond 4, pond 5, pond 6 and CAL shown in Schedule 1, Figure 7: Wastewater Treatment Infrastructure Map
Lairage			
3.	Livestock holding pens (lairage yards) bunded with a hardstand base.	(a) All wastewater and stormwater contaminated with sediment and/or animal waste from the livestock holding pens to be directed to the yard pond via concrete box drains and PVC pipes; and (b) Bunding and/or sloped hardstand base directs all uncontaminated stormwater flows from entering the holding pens, concrete box drains and yard pond.	Labelled as lairage yards shown in Schedule 1, Figure 4: Monitoring Locations and Main Site Features

Site infrastructure and equipment		Operational requirements	Infrastructure location
4.	Yard pond compacted clay lined	(a) Only receives wastewater from the livestock holding pens; and (b) A minimum 300-millimeter freeboard must always maintained.	Labelled as yard pond shown in Schedule 1, Figure 4: Monitoring Locations and Main Site Features
Biogas recovery			
5.	A 1000 L polyethylene stormwater storage tank	(a) Only receives water from the CAL cover, prior to release to local drainage network.	Labelled as stormwater buffer tank shown in Schedule 1, Figure 7: Wastewater Treatment Infrastructure Map
6.	Enclosed pipe wastewater transfer infrastructure.	(a) Pipe system transfers the wastewater from the yard pond and /or Save all / DAF to the CAL. (b) Pipe system transfers wastewater from the CAL to the RENOIR.	Labelled as raw wastewater pipe, and new pipeline from CAL to RENOIR shown in Schedule 1, Figure 7: Wastewater Treatment Infrastructure Map
7.	Enclosed biogas pipeline	(a) Pipeline transfers biogas from the CAL to boiler.	Labelled as HDPE pipe below ground shown in Schedule 1, Figure 7: Wastewater Treatment Infrastructure Map
8.	CAL and associated flare emergency vent (emergency relief valve) and boiler	(a) Operated such that biogas is directed to the flare or boiler unless the pressure under the CAL cover is such that it is required to be vented via the emergency vent.	Labelled as CAL flare shown in Schedule 1, Figure 7: Wastewater Treatment Infrastructure Map
Irrigation of wastewater			

Site infrastructure and equipment		Operational requirements	Infrastructure location
9.	Drainage channels and slide gates	(a) Irrigation is to occur only on Areas A, B and C.	Labelled as Area A, Area B and Area C shown on Schedule 1, Figure 3: Map of Irrigation areas
Gas Power Plant			
10	Natural gas generator (<10 MW) (once constructed)	(a) Located on a concrete bunded hardstand with drainage segregating clean stormwater from contaminated runoff. (b) Within 60 days of the natural gas generator becoming operational, the licence holder must conduct sampling for nitrogen dioxide (NO_2), carbon monoxide (CO) and particulate matter emissions from the natural gas generator. (c) The licence holder must, within 30 days of the monitoring required by condition (b) being completed, prepare and submit to the CEO a report on that monitoring.	Labelled as Gas Power Plant (<10MW) shown in Schedule 1, Figure 8: Proposed Infrastructure
Biosolids dewatering			
11	Biosolids dewatering area with geobags (once constructed)	(a) Geobags to be located on a bunded concrete pad, graded to direct any leachate to a sump. (b) Leachate to be directed to wastewater treatment ponds 3, 4 or 5.	Labelled as Geobags shown in Schedule 1, Figure 8: Proposed Infrastructure
Salting of hides			
12	Salt shed with concrete base	(a) Salting of hides to be undertaken within shed. (b) Salting drums to be stored within shed. (c) Floor of shed to be graded and/or bunded to direct wastewater/spent brine to a collection sump.	Labelled as Salt Shed shown in Schedule 1, Figure 8: Proposed Infrastructure

Submission of revised nutrient and irrigation management plan

12. The licence holder must submit to the CEO, by **30 September 2024**, a revised Nutrient and Irrigation Management Plan.

13. The revised Nutrient and Irrigation Management Plan required by condition 12, shall include, but not be limited to:

(a) an assessment of the suitability of irrigation area A, irrigation area B and irrigation area C based on:

(i) hydraulic loading rates during all seasons (soil moisture rates);
(ii) nutrient application rates (including all wastes (nutrient) inputs);
(iii) nutrient (biomass) export rates and
(iv) biochemical oxygen demand loading rates;

taking into account pasture or crop requirements within the irrigation areas.

(b) a monthly water balance assessing the adequacy of the storage capacity of the wastewater treatment system;

(c) a nutrient balance which clearly identifies the availability of nutrient(s) from each source, vegetation uptake rates, soil storage capacity, and environmental loss during the assessment year and accounts for any nutrient credits for following years;
(d) an assessment of the total nutrient application rate to the irrigation areas (kg/ha/annual period) based on part (a) of this condition;
(e) a contingency plan for storage of wastewater during wet weather periods when irrigation may not occur or irrigation volumes may be lower;
(f) a qualitative and quantitative risk assessment to determine acceptable nutrient application rates to minimise the potential of soil, surface water or groundwater contamination;
(g) identification of any improvements required; and
(h) details of any proposed management measures, including timeframes, that can be implemented to reduce the risk of potential environmental impacts that may occur as a result of maximum recommended nutrient loading rates being exceeded.

Emissions and discharges

Emissions to air

14. The licence holder must ensure that the emissions specified in Table 5 are discharged only from the corresponding discharge point and only at the corresponding discharge point location.

Table 5: Authorised discharge points during operations

Emission		Discharge point	Discharge point location
1.	Combusted biogas through the flare	Flare stack (height approximately 6 – 8 magl)	CAL Flare, as shown in Schedule 1: Figure 7
2.	Boiler exhaust gases	Boiler stacks	Boiler house, as shown in Schedule 1: Figure 7
3.	Rendering exhaust gases from existing rendering facility	Biofilters	Biofilters as shown in Schedule 1 Figure 4, Monitoring Locations and Main Site Features
4.	Rendering exhaust gases from new rendering facility *(once constructed in accordance with conditions 1 to 4 and operated in accordance with conditions 5 and 6)*	Biofilters	Biofilters as shown in Schedule 1, Figure 4, Monitoring Locations and Main Site Features Biofilters as shown in Schedule 1, Figure 8, Proposed Infrastructure

Emissions to land loading limits

15. The licence holder must ensure that wastewater irrigated to irrigation Area A, Area B and Area C does not exceed the limits specified in Table 6 for each of the corresponding parameters listed in that table.

Table 6: Irrigation limits to land

Emission reference	Parameter	Loading Limit
Area A	Total Nitrogen	400 kg/ha/annual period
	Total Phosphorus	120 kg/ha/annual period
	$BOD_{5\ day}$	30 kg/ha/day
Area B	Total Nitrogen	400 kg/ha/ annual period

Emission reference	Parameter	Loading Limit
	Total Phosphorus	120 kg/ha annual period
	$BOD_{5\ day}$	30 kg/ha/day
Area C	Total Nitrogen	400 kg/ha/ annual period
	Total Phosphorus	120 kg/ha/ annual period
	$BOD_{5\ day}$	30 kg/ha/day

Renderable material acceptance and monitoring

16. The licence holder must only accept renderable material on to the Premises for processing if:

(a) it is a waste type listed in Table 7;
(b) the quantity accepted is below any quantity limit listed in Table 7; and
(c) meets any specifications listed in Table 7.

Table 7: Renderable material acceptance criteria

Waste type	Quantity limit	Specification
Renderable animal material	Prior to operation of new rendering facility and biofilters: Not more than 10,000 tonnes per annual period accepted for rendering at the premises. Following completion of new rendering facility and biofilters (subject to compliance with conditions 1 to 6): Not more than 50,000 tonnes per annual period accepted for rendering at the premises.	(a) Must be accepted into and stored within an enclosed~~,~~ vessel or tank, whilst awaiting processing; and (b) Must be removed from the premises or introduced into the rendering cookers within fifteen (15) hours from the time of being received on to the Premises.

17. The licence holder must record the total amount of material accepted onto the premises, for each type listed in Table 8, in the corresponding unit, for each corresponding time period, and meet any specifications listed, as set out in that table.

Table 8: Material accepted on to the premises

Waste type	Units	Time period	Specifications
Renderable material accepted at the premises for rendering	litres; or tonnes	Each load accepted at the premises	The licence holder must also record the type and source of renderable material accepted at the premises.

Waste and By-Product Storage, Disposal and Monitoring

18. The licence holder must ensure that wastes and by-products produced on the premises, specified in Table 9 are managed in accordance with the corresponding requirements specified in that table.

Table 9: Waste and by-product management specifications

	Waste and by-product type	Disposal strategy	Specified requirements
1.	Dead animals	Processed in the rendering facility or removed offsite	(a) Processed in the rendering facility or removed offsite within 24 hours of the licence holder becoming aware of the dead animal; (b) Animals removed off-site must be taken to a premises that is lawfully able to accept that type of waste, such as a licensed rendering facility, or a licensed composting or organics recycling facility that is authorised to accept that type of waste.
2.	Solid waste (manure) from lairage yards	Removed from the premises	To be stored in impermeable bins for no longer than 72 hours, prior to removal offsite to a premises that is lawfully able to accept that type of waste, such as a licensed composting or organics recycling facility, or a licensed solid waste facility that is authorised to accept that type of waste.
3.	Paunch (undigested stomach contents)	Removed from the premises	(a) To be stored in impermeable bins for no longer than 72 hours prior to removal offsite to a premises that is lawfully able to accept that type of waste, such as a licensed composting or organics recycling facility, or a licensed solid waste facility. (b) Bins to be located on a hardstand.
4.	Hides	Salted onsite or removed from the premises	(a) If not salted onsite, to be stored in impermeable bins for no longer than 24 hours. (b) Bins to be located undercover on a hardstand area. (c) Hides removed off-site must be taken to a licensed rendering facility or a licensed composting or organics recycling facility that is authorised to accept that type of waste.
5.	Renderable material from the abattoir (including offal and blood)	Processed in the rendering facility or managed in accordance with Condition 4	(a) Blood to be stored in a collection sump for no longer than 15 hours prior to rendering. (b) Renderable material, other than blood, to be stored in impermeable bins or tanks for no longer than 15 hours prior to rendering.
6.	Wastewater from the abattoir and rendering operations	Storage and treatment on the premises	All process wastewater must be directed to the anaerobic pond.
7.	Wastewater	Evaporation or disposal onsite by irrigation to Irrigation areas: Area A, Area B and Area C.	(a) Wastewater must be evenly distributed over irrigation Area A, irrigation Area B and irrigation Area C. (b) No soil erosion or ponding of wastewater occurs on the Irrigation Area. (c) There must be no direct runoff, spray drift or discharge beyond the Irrigation Area. (d) Healthy vegetation cover is maintained over the Irrigation Area. (e) Discharge of wastewater on the Irrigation Area does not occur during periods of rainfall or onto flooded area(s). (f) Subject to compliance with condition 15.

	Waste and by-product type	Disposal strategy	Specified requirements
8.	Sludge waste	Storage, disposal offsite	(a) Store all removed sludge on a drying bed or in a geobag which is adequately bunded and drained to direct leachate from the drying bed or geobag back into the wastewater ponds. OR (b) Dispose of all removed sludge off-site to a premises that is lawfully able to accept that type of waste, such as licensed composting or organics recycling facility or a licensed solid waste facility that is authorised to accept that type of waste.
9.	Brine (from salting of hides)	Storage, disposal offsite	Stored in tanks prior to being disposed offsite.

19. The licence holder must record the total amount of waste and by-products removed from the premises for each waste or by-product type listed in Table 10, in the corresponding unit, and for each corresponding time period set out in that table.

Table 10: Waste and by-products removed from the premises

Waste and by-product type	Unit	Time period
Dead animals	Number of dead animals	Each batch leaving the premises
Solid waste (manure)	m^3 or tonnes	Each monthly period
Paunch	m^3 or tonnes	Each monthly period
Hides	number or tonnes	Each monthly period
Renderable material	tonnes	Each batch leaving the premises
Sludge waste	m^3 or tonnes	Each batch leaving the premises
Spent brine (from salting of hides)	kL	Each monthly period

Monitoring

20. The licence holder must monitor emissions:
(a) from each monitoring location;
(b) for the corresponding parameter;
(c) at the corresponding frequency;
(d) for the corresponding averaging period;
(e) in the corresponding unit; and
(f) using the corresponding method,
as set out in Table 11.

Table 11: Emissions and discharge monitoring

Monitoring location	Parameter	Units	Frequency	Averaging period	Method
P3B and P6A	Volume of wastewater discharged	m^3	Continuous when discharging	monthly	AS 5667.1 AS 5667.10
	pH[1]	-	Monthly	Spot sample	
	Total dissolved solids	mg/L			
	Total suspended solids				
	5-day BOD				

Monitoring location	Parameter	Units	Frequency	Averaging period	Method
	Total nitrogen				
	Ammonium-nitrogen				
	Nitrate + Nitrite-Nitrogen				
	Total Phosphorus				
	Aluminum		Annually		
	Cadmium				
	Chlorine residuals				
	Boron				
	Copper				
	Lead				
	Mercury				
	Zinc				

Note 1: Condition 25 does not apply to pH

21. The licence holder must undertake soil sampling at the locations specified in Table 12 using the services of a certified soil scientist and in accordance with the corresponding soil profile, parameters, units of measurement, sampling frequency and sampling method specified in that table.

Table 12: Soil sampling and monitoring requirements

Soil sampling points and Map reference	Soil profile	Parameter	Units	Sampling frequency	Sampling method
6S2:2, 6S3:2, 6S4:1, 6S5:2, 7S1:2, 7S5:1, 7S6:1, 8S1:1, 8S2:3, 8S4:1, 8S5:1, 8S6:3, 8S8:2, 8S9:1, 9S3:2, 9S4:1, 9S5:1, 9S6:2, 10S2:3, 10S4:3, 10S5:1, GR1:3, GR1:6, GR1:7, Kealys 1, Phoenix 1; Phoenix 2; Phoenix 3, Phoenix 4 and Phoenix 6 as shown in the map Soil Sampling Locations	0 – 10 cm 10 – 20 cm 20 – 30 cm 30 – 70 cm	pH (in $CaCl_2$)[1]	-	Annually	AS/NZS 4482.1
		Electrical conductivity[1]	dS/cm		
		Moisture content	%		
		Total nitrogen	mg/kg		
		Nitrate nitrogen	mg/kg		
		Ammonium nitrogen	mg/kg		
		Phosphorus (Colwell)	mg/kg		
		Phosphorus Buffering Index	-		
		Exchangeable sodium percentage	%		

Note 1: Condition 25 does not apply to pH or electrical conductivity

22. The licence holder must undertake groundwater monitoring at the locations specified in Table 13 for the corresponding parameters, units, frequency, averaging period and sampling method specified in that table.

Table 13: Groundwater monitoring

Monitoring bores	Parameter	Units	Frequency	Averaging period	Sampling method
MW01 MW02 MW03 CAL01 CAL02 CAL03 CAL04 MW04 (once constructed) MW05 (once constructed)	Standing water level	m(AHD) m(BGL)	Quarterly in March, June, September, December	Spot, in-field measurement	-
	pH[1]	-			AS 5667.1 AS 5667.11
	Electrical conductivity[1]	µS/cm			
	Total nitrogen	mg/L		Spot sample	
	Ammonia nitrogen				
	Nitrate nitrogen				
	Total phosphorus				
	Reactive phosphorus				
	Total dissolved solids				
	BOD 5-day				
	Major ions: Na^+, K^+, Ca^{2+}, Mg^{2+}, Cl^-, SO_4^{2-}, HCO_3^-				

Note 1: Condition 25 does not apply to pH or electrical conductivity

23. The licence holder must record the results of all monitoring activity required by conditions 20, 21 and 22.

24. The licence holder must ensure that:

(a) monitoring is undertaken in each monthly period such that there are at least 15 days in between the days on which samples are taken in successive months;
(b) monitoring is undertaken in each quarterly period such that there are at least 45 days in between the days on which samples are taken in successive quarters; and
(c) monitoring is undertaken in each annual period such that there are at least 9 months in between the days on which samples are taken in successive years.

25. The licence holder must ensure that all samples required for collection by conditions 20, 21 and 22 are submitted to and tested by a laboratory with current NATA Accreditation for the parameters being measured unless indicated otherwise in the relevant table.

Records and reporting

26. The licence holder must record the following information in relation to complaints received by the licence holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:

(a) the name and contact details of the complainant, (if provided);
(b) the time and date of the complaint;
(c) the complete details of the complaint and any other concerns or other issues raised; and
(d) the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.

27. The licence holder must:

(a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and
(b) prepare and submit to the CEO by no later than 31 March after the end of that

annual period an Annual Audit Compliance Report in the approved form.

28. The licence holder must maintain accurate and auditable books including the following records, information, reports, and data required by this licence:

(a) the calculation of fees payable in respect of this licence;
(b) any maintenance of infrastructure that is performed in the course of complying with condition 11 of this licence;
(c) monitoring programmes undertaken in accordance with conditions 19, 20, 21 and 22 of this licence; and
(d) complaints received under condition 26 of this licence.

29. The books specified under condition 28 must:

(a) be legible;
(b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;
(c) be retained by the licence holder for the duration of the licence; and
(d) be available to be produced to an inspector or the CEO as required.

30. The licence holder must submit to the CEO by no later than 31 March after the end of each annual period, an Annual Environmental Report for that annual period for the conditions listed in Table 14, and which provides information in accordance with the corresponding requirement set out in that table.

Table 14: Annual Environmental Report

Condition	Requirement
17	The Report must contain the type, source and amount, in litres or tonnes, of all renderable material entering the premises, presented in table format.
15, 20	The Report must contain: (a) volume (in m^3 or kL) of wastewater applied daily to each irrigation area, Area A, Area B and Area C, and monthly cumulative volumes presented in table format. This must include a photograph, taken at the end of the annual period, of the flow meter(s) used for measuring the cumulative volume of wastewater irrigated to the irrigation area(s). The photograph(s) must clearly show the meter reading and serial number of the flow meter, and the date the photograph was taken. (b) estimate of tonnages (in kg or cubic metres) of manure applied to each irrigation area, based on the number and duration of stock accessing the irrigation areas; (c) wastewater monitoring data in tabulated and graphical form including the sampling date; (d) tabulated monthly and annual loadings of nitrogen, phosphorus and $BOD_{5\ day}$ applied to each irrigation area, Area A, Area B and Area C, including an explanation of the basis for determining loading rates. This calculation must be provided in the form of the *Licence holder loading rates calculator* as provided by email and shown in Appendix 2 of the associated amendment report. An electronic copy of the spreadsheet can also be requested by emailing info@dwer.wa.gov.au. (e) an assessment and interpretation of the data including comparison to historical trends and loading limits; and (f) copies of laboratory sample analysis reports.
19	The Report must contain the amount of each waste and by-products removed from the premises during the annual period.

Condition	Requirement
21	The Report must contain: (a) soil monitoring data in tabulated and graphical formats including the sampling date; (b) an assessment and interpretation of the data including comparison to historical trends; and (c) copies of laboratory sample analysis reports.
22	The Report must contain: (a) groundwater monitoring data in tabulated and graphical formats including the sampling date; (b) an assessment and interpretation of the data including comparison to historical trends; and (c) copies of laboratory sample analysis reports.
26	The Report must contain a summary of complaints records for the reporting Annual Period.
-	The Report must contain: (a) a summary of annual, or as needed at the end of rotation/harvest, data collated on plant biomass tonnage (crop yields) removed from the premises; (b) a summary of annual, or as needed at the end of rotation/harvest, leaf tissue analysis for each crop grown at the Premises; and (c) estimated net nutrient loading rates for each irrigation area, Area A, Area B and Area C, considering crop rotation, plant biomass tonnage (crop yields) data and leaf tissue analysis data.
-	The Report must contain any issues raised from inspections or incident responses during the reporting period together with details as to how these have been addressed / rectified or, if the required work has yet to be completed, how and when they will be completed / rectified.
-	The Report must contain any changes to site boundaries, location of groundwater monitoring bores, surface drainage channels and on-site or off-site impacts or pollution.

Definitions

In this licence, the terms in Table 15 have the meanings defined.

Table 15: Definitions

Term	Definition
ACN	Australian Company Number
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website)
annual period	means a 12-month period commencing from 1 January until 31 December of the same year.
AS/NZS 4482.1	means the current version of Australian/New Zealand Standard AS/NZS 4482.1: *Guide to the investigation and sampling of sites with potentially contaminated soil*.
AS 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 amended from time to time
AS 5667.11	means the Australian Standard *AS/NZS 5667.11 Water quality – sampling – guidance on sampling groundwater*, as amended from time to time
condition	means a condition to which this licence is subject under s.62 of the EP Act.
CAL	Covered Anaerobic Lagoon
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
compliance report	means a report in a format approved by the CEO as presented by the Licence Holder or as specified by the CEO (guidelines and templates may be available on the Department's website).
condition	means a condition to which this Licence is subject under s.62 of the EP Act.
DAF	dissolved air flotation
Department	means the department established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V, Division 3 of the EP Act.
Department Request	means a request for Books or other sources of information to be produced, made by an Inspector or the CEO to the Licence Holder in writing and sent to the Licence Holder's address for notifications, as described at the front of this Licence, in relation to: (a) compliance with the EP Act or this Licence; (b) the Books or other sources of information maintained in accordance with this Licence; or (c) the Books or other sources of information relating to Emissions from the Premises.
DWER	Department of Water and Environmental Regulation.
EP Act	means the *Environmental Protection Act 1986* (WA).

Term	Definition
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 structure at their lowest point.
HDPE	high density polyethylene
Inspector	means an inspector appointed by the CEO in accordance with s.88 of the EP Act.
irrigation area	refers to Area A, Area B and Area C as depicted in Schedule 1: Maps – Irrigation Areas
licence	refers to this document, which evidences the grant of a 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.
licensed composting facility	means a premises that holds a current and valid licence granted by the CEO under section 57 of the EP Act for a compost manufacturing and soil blending facility (category 67A)
licensed rendering facility	means a premises that holds a current and valid licence granted by the CEO under section 57 of the EP Act for a rendering facility (category 16)
licensed solid waste facility	means a premises that holds a current and valid licence granted by the CEO under section 57 of the EP Act for a solid waste facility (category 61A)
local drainage network	means stormwater drains that take surface water from land and directs it to drainage outlets.
m(AHD)	means metres Australian Height Datum.
m(BGL)	means metres below ground level.
NATA	means the (Australian) National Association of Testing Authorities
NUDLC, 2020	refers to the document *Minimum Construction Requirements for Water Bores in Australia*, fourth edition, National Uniform Drillers Licensing Committee 2020, 2020.
premises	refers to the premises to which this Licence applies, as specified at the front of this Licence and as shown on the map in Schedule 1 to this Licence.
RENOIR	means removal of nitrogen for irrigation.

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in the map below (Figure 1).

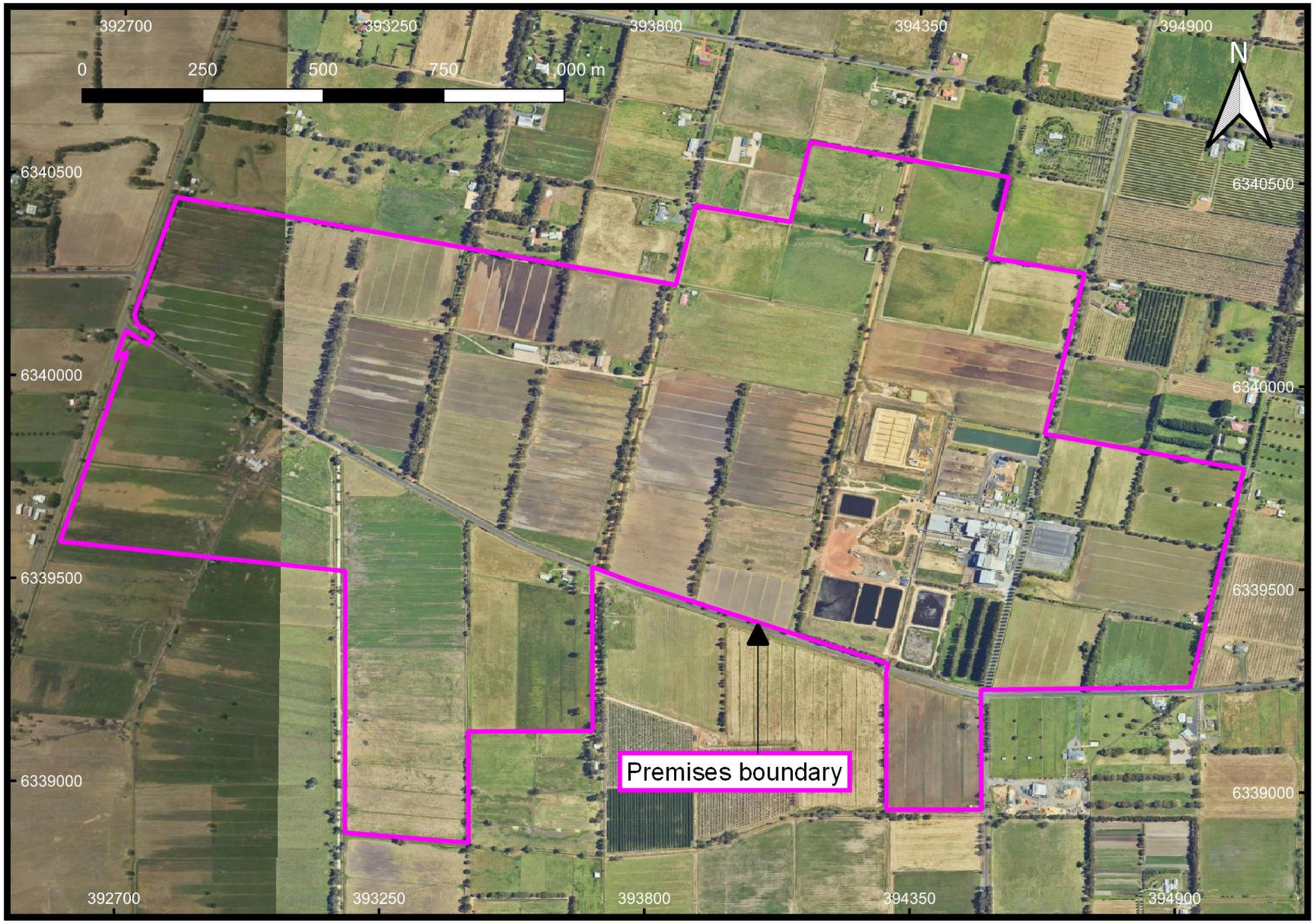

Figure 1: Map of the boundary of the prescribed premises

Site map

The layout of the abattoir (Figure 2).

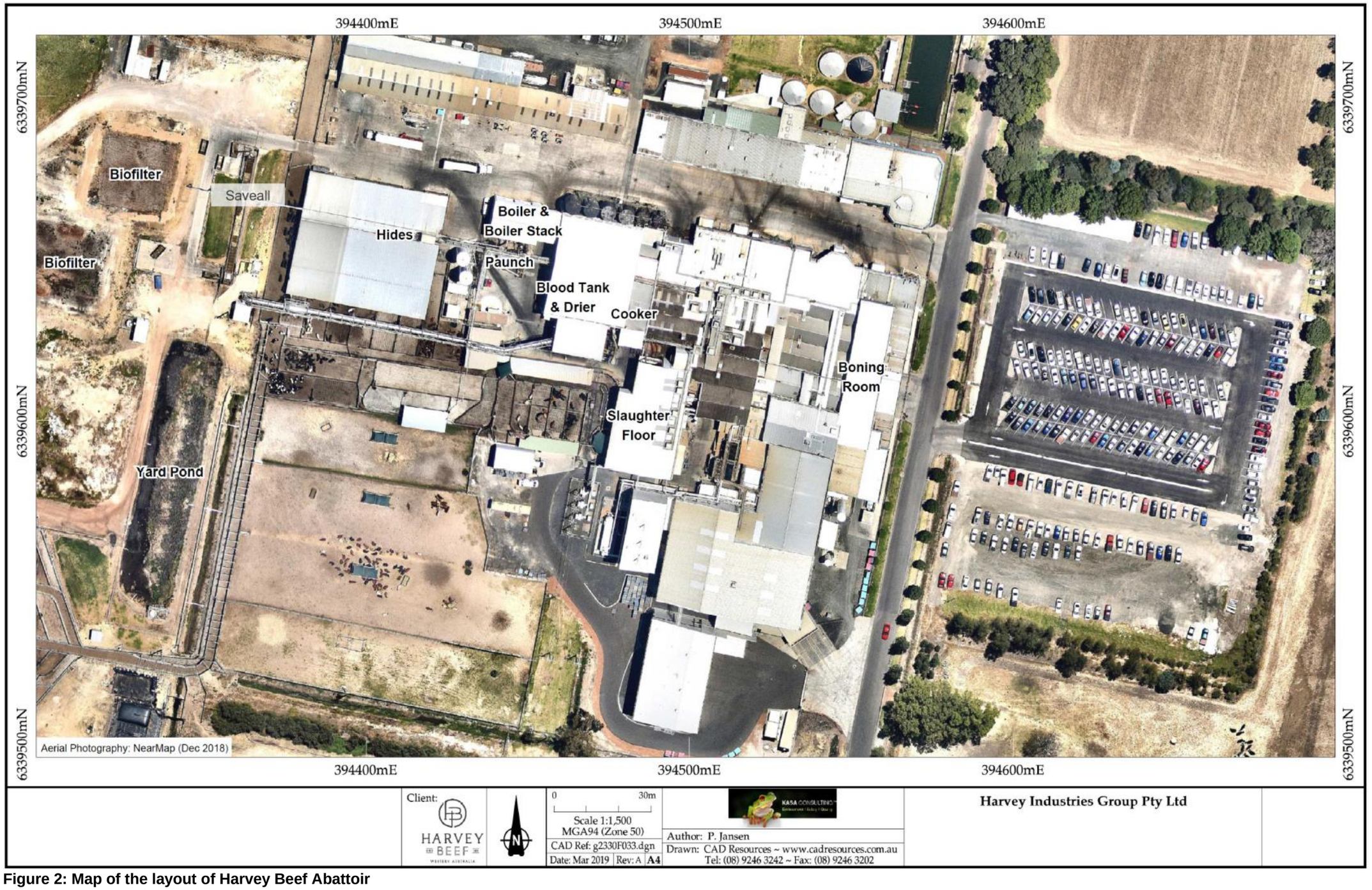

Figure 2: Map of the layout of Harvey Beef Abattoir

Irrigation Areas

The outline of the irrigation areas within the prescribed premises is shown in the map below (Figure 3).

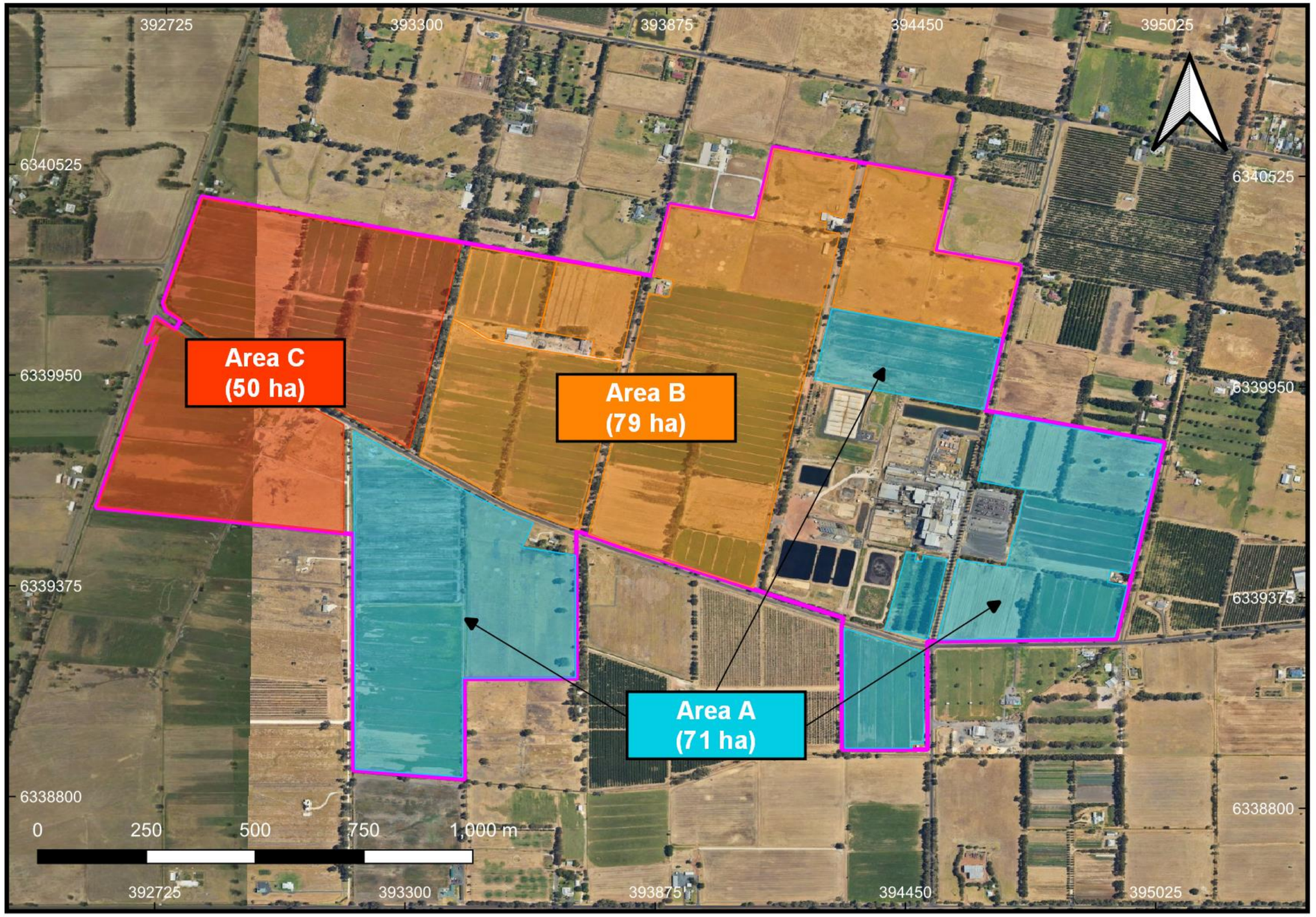

Figure 3: Map of the irrigation areas.

Monitoring Locations and Main Site Features

The monitoring locations and main site features within the prescribed premises is shown in the map below (Figure 4).

Figure 4: Map of the main site features and monitoring locations.

Soil Sampling Locations

The soil sample location map within the prescribed premises is shown in the map below (Figure 5).

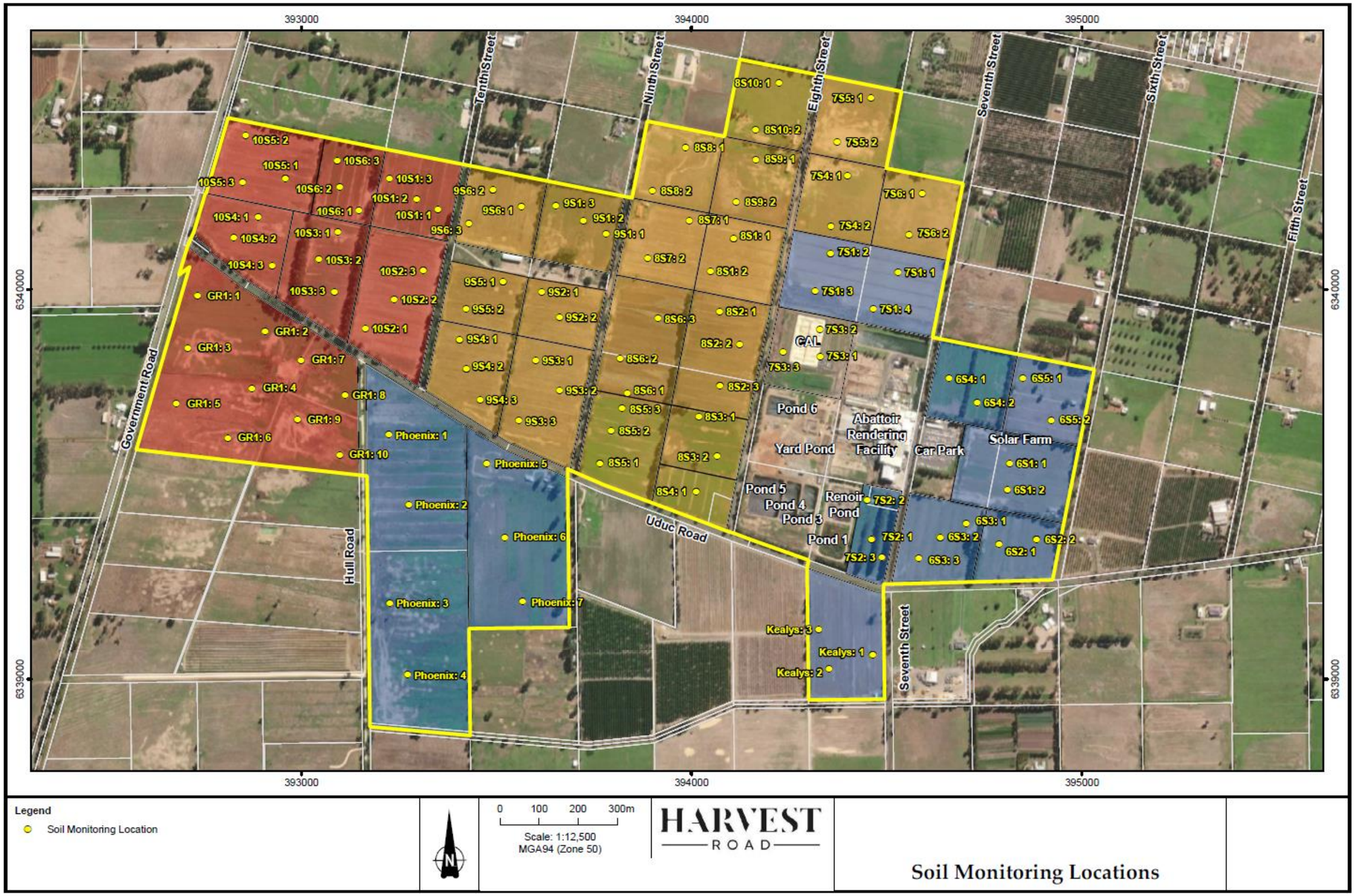

Figure 5: Map of the soil sampling locations

Groundwater Monitoring Well Locations

The locations of the groundwater monitoring bore locations within the prescribed premises are shown in the map below (Figure 6).

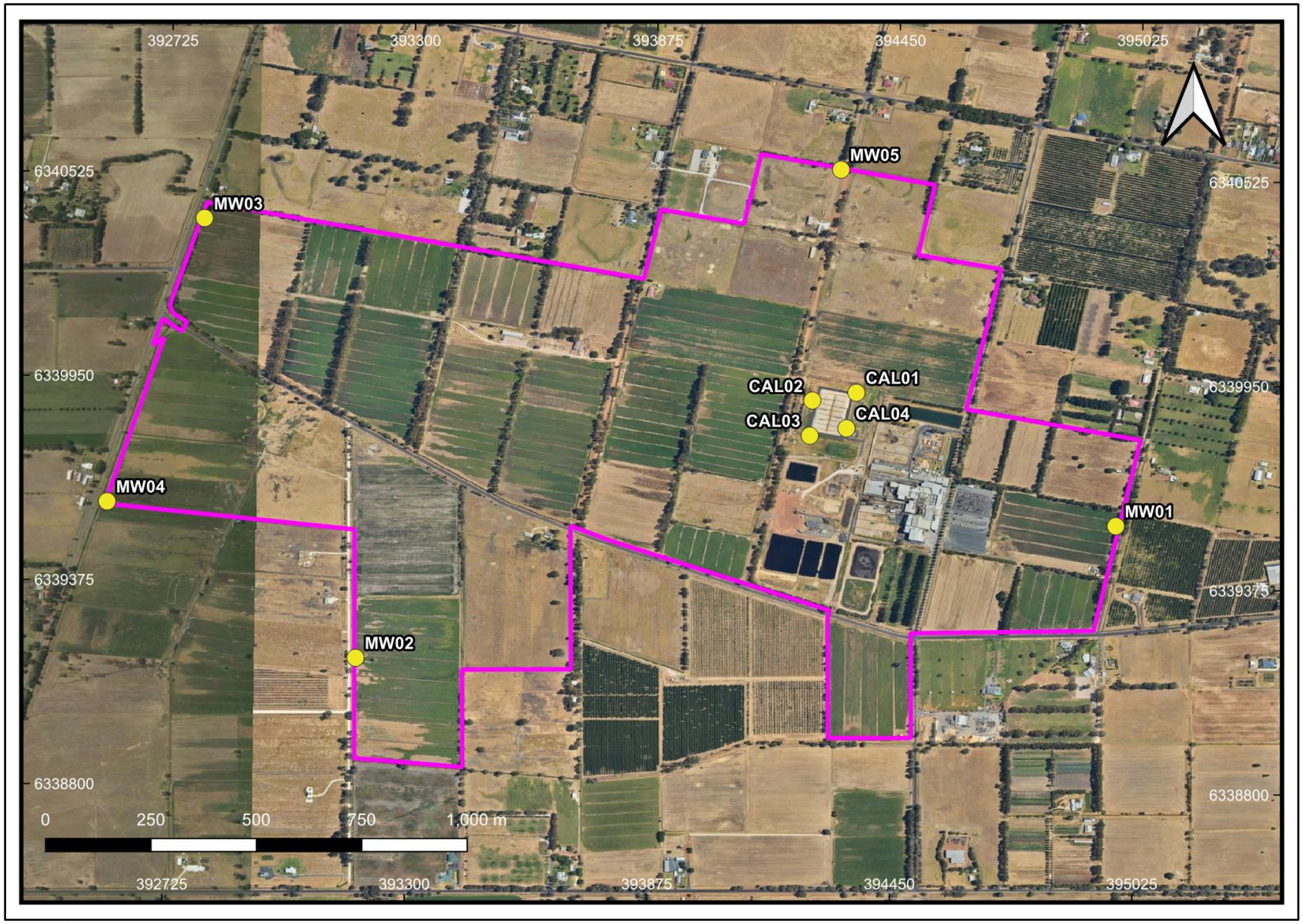

Figure 6: Location of groundwater monitoring wells.

Wastewater treatment infrastructure map

The wastewater treatment infrastructure is outlined within the map below (Figure 7).

Figure 7: Map of the wastewater infrastructure within the prescribed premises.

Proposed infrastructure

The proposed infrastructure is shown in the map below (Figure 8)

Figure 8: Map of proposed infrastructure