Government of Western Australia
Department of Water and Environmental Regulation

Revised Licence

Licence number	L9137/2018/1
Licence holder	Semini Enterprises Pty Ltd
ACN	069 792 981
Registered business address	7 Harris Road BUSSELTON WA 6280
DWER file number	DER2018/000869
Duration	04/07/2018 to 03/07/2030
Date of amendment	12/10/2021
Premises details	Semini Cattle Feedlot 41 Sands Road TREETON WA 6284 Legal description - Being Lot 2254 on Plan 203091and Lot 2 on Diagram 35159, as depicted in Schedule 1

Prescribed premises category description (Schedule 1, Environmental Protection Regulations 1987)	Assessed design capacity
Category 1: Cattle Feedlot: premises on which the watering and feeding of cattle occurs, being premises – (a) situated less than 100 m from a watercourse; and (b) on which the number of cattle per hectare exceeds 50	Not more than 2,000 animals at any time

This revised licence is granted to the licence holder, subject to the attached conditions, on 12 October 2021, by:

Caron Goodbourn
Digitally signed by Caron Goodbourn
Date: 2021.10.12 08:20:20 +08'00'

MANAGER, PROCESS INDUSTRIES
REGULATORY SERVICES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Licence history

Date	Ref number	Summary of changes
14/03/2005	L7986/2004/1	New application for Licence received 29/10/2004 and the Licence issued 14/03/2005
14/03/2006	L7986/2004/2	Licence re-issue
14/03/2007	L7986/2004/3	Licence re-issue
14/03/2008	L7986/2004/4	Licence re-issue
14/03/2013	L7986/2004/5	Licence re-issue
14/03/2016	L7986/2004/6	Licence re-issue and amendment to new format
28/08/2017	L7986/2004/6	DWER initiated administrative amendment to correct clerical error and description of temporarily manure stockpile.
NA	L7986/2004/6	Ceased to have effect-late payment of annual fee
05/07/2018	L9137/2018/1	Replacement licence issued for L7986/2004/6.
12/10/2021Y	L9137/2018/1	DWER initiated licence amendment following a risk-based review of the licence, infrastructure and operations being conducted on the premises.

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:

Infrastructure and equipment

1. The licence holder must ensure the site infrastructure and equipment listed in Table 1 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in that table.

Table 1: Infrastructure and equipment requirements

	Site infrastructure and equipment	Operational requirements	Infrastructure location
Feedlot			
1	Twelve (12) feedlot pens with a combined total area not exceeding 17,280 m^2	(a) Stormwater must be diverted away from the feedlot pens using bunds and/or cut-off drains; (b) All leachate and contaminated runoff from the feedlot pens to be directed to the main drain/retention basin; (c) Feedlot pens must be scraped of all manure at least every 20 weeks, and the manure stockpiled within the WSA or removed from the premises; (d) A logbook must be maintained of the dates in which manure removal referred to in item 1(c) is carried out; (e) Feedlot pens must not hold no more than 2,000 head of cattle in total at any time; (f) Feedlotting must not occur outside of the feedlot pens on the premises.	As labelled in Figure 1, Schedule 1 as: Feedlot Pens
2	One (1) holding pen (drafting yard) with a total area not exceeding 3,417 m^2	(a) Holding pen scraped of all manure following each batch of cattle held in the yard being transferred to the feedlot pens; (b) Must prevent discharge of manure and sediment from the holding pen.	As labelled in Figure 1, Schedule 1 as: Holding pen
3	Waste storage area (WSA)	(a) Surface must be graded and drained so that leachate is directed to the main drain or retention basin; (b) Stormwater must be diverted away from the WSA using bunds and/or cut-off drains; (c) Sludge removed from the retention basin and manure removed from the pens may be stored within the WSA for the purpose of drying the waste material.	As labelled in Figure 2, Schedule 1 as: WSA
Wastewater basin and drainage system			
4	Main drain	(a) Must be used to direct all surface runoff from the feedlot pens and WSA to the retention basin; (b) Must be kept free of solids to allow free flow of wastewater to the retention basin; (c) Stormwater must be diverted away from the main drain using bunds and/or cut-off drains.	As labelled in Figure 1, Schedule 1 as: Main drain
5	Retention basin	(a) All runoff from the pens, WSA and main drain must be directed to the retention basin; (b) Stormwater must be diverted away from the retention basin using bunds and/or cut-off drains; (c) A minimum freeboard of at least 300 mm below the base of the spillway must be maintained at all times; (d) The basin must be de-sludged at least once every annual period; (e) A logbook must be maintained of the dates in which de-sludging referred to in 5(d) is carried	As labelled in Figure 1, Schedule 1 as: Retention Basin

	Site infrastructure and equipment	Operational requirements	Infrastructure location
		out and the volume of sludge removed; (f) Any overtopping of the retention basin or discharge via the retention basin spillway must to be reported to the CEO within 24 hours of commencement of the discharge event..	Spillway
Irrigation of wastewater			
6	Irrigation Pump (D1) water delivery pipes	(a) Must be capable of pumping wastewater from the retention basin to the irrigation area (paddock 19) L1; (b) Prior to installation of a flow meter required by condition 2, must keep and maintain up to date records of pump hours to enable the volume of wastewater pumped to the irrigation area to be calculated; (c) Must be maintained in good working condition and free of leaks.	As labelled in Figure 2, Schedule 1 as: D1
7	Flow meter (D2)	(a) Once installed, must be maintained to enable accurate measurements of the cumulative volume of wastewater discharged from the retention basin to the irrigation area (L1).	As labelled in Figure 2, Schedule 1 as: D2
8	11.6 ha wastewater irrigation area (L1) (Paddock 19) irrigated through a travelling irrigator	(a) Must comprise a travelling irrigator (or similar), maintained in good working order capable of delivering water at a spreading width of at least 30 m; (b) Irrigation system valves, pumps, pipelines and other fittings must be maintained and inspected daily for ruptures or leaks when irrigating.	As labelled in Figure 2, Schedule 1 as: L1
Deceased animals			
9	Carcass burial area	(a) Deceased animals must be buried within the designated burial area or removed off-site for disposal; (b) Carcasses must be fully covered with soil within 1 hour of disposal; (c) The total number of animals buried in each annual period must to be recorded.	As labelled in Figure 1, Schedule 1as: Burial site
Manure management			
10	Compost pad	(a) Organic waste materials, including manure, must not be stored or composted within the compost pad area.	As labelled in Figure 1, Schedule 1as: Compost site

Works

Installation of equipment and infrastructure

2. The licence holder must:

(a) construct or install the equipment and infrastructure;
(b) in accordance with the corresponding design and construction requirement;
(c) at the corresponding infrastructure location;
(d) within the corresponding timeframe; and

(e) submit details outlining compliance within 30 days of completion of the works, as set out in Table 2.

Table 2: Installation requirements

Infrastructure and equipment	Design and construction requirement	Infrastructure location	Timeframe
Volumetric flow meter (D2)	A volumetric flow meter to be installed that can accurately measure the cumulative flows of wastewater pumped to the irrigation area (L1)	Flow meter to be located on the offtake pipeline of the irrigation pump (D1)	Before 31 December 2021

Specified Actions

Infrastructure audit

3. The licence holder must submit to the CEO, by 31 October 2022, the results of an audit of the feedlot infrastructure and operations against the minimum requirements of the National Guidelines.

4. The audit required by condition 3 must include, but not be limited to, the following:

(a) an assessment of the existing feedlot infrastructure against the design components listed in the following sections of the National Guidelines:
  (i) section 1.2 – feedlot design components; and
  (ii) section 1.3 – drainage system,

(b) certification by a qualified professional, whether the existing feedlot controlled drainage system complies with the design standards listed in Appendix A of the National Guidelines for the following components:
  (i) drainage system;
  (ii) sedimentation system; and
  (iii) holding ponds,

(c) using a certified surveying professional, survey details of all drain structures (including contaminated drains from feedlot pens and clean stormwater drains) and the retention basin, including cross-sectional and scaled drawings, their flow paths and receiving basins;

(d) results of permeability testing to demonstrate compliance with the lining requirements specified in the design standards listed in Appendix A of the National Guidelines;

(e) an assessment of the existing manure and carcass composting operations (where applicable), against the specifications in Appendix C and Appendix D of the National Guidelines;

(f) an assessment of the existing effluent and manure utilisation practices conducted at the premises against the specifications in Appendix E of the National Guidelines; and

(g) a summary of the audit findings, including:
  (i) a description of infrastructure that is absent, or components of infrastructure that have been certified as being non-compliant with the National Guidelines;
  (ii) a list of improvements that are required to correct the absent and non-compliant items; and
  (iii) timeframes for completing the identified improvements.

Water balance and nutrient and irrigation management plan

5. The licence holder must submit to the CEO, by 31 May 2022, a detailed nutrient and irrigation management plan (NIMP). The NIMP must:

(a) demonstrate how the irrigation schedule of wastewater at the premises considers rainfall, evaporation and water requirements of the crop;
(b) demonstrate that the irrigation schedule of wastewater does not saturate the soil;
(c) demonstrate that the irrigation schedule of wastewater meets the nutrient growth rates of the crop;
(d) include a nutrient and water balance that demonstrates how all nutrient inputs (wastewater, cows grazing manure, fertiliser applications) and exports (crop harvesting) in the irrigation area have been accounted for;
(e) include site specific nutrient loading limits; and
(f) provide all calculations, methods, monitoring data and measurements used to demonstrate the above.

Emissions and discharges

6. The licence holder must ensure wastewater and solid waste is discharged to land only at the locations specified in Table and in accordance with the corresponding discharge requirements specified in Table.

Table 4: Authorised discharge of wastewater and solid waste

Emission point reference as specified in Schedule 1	Discharge requirements	Discharge location
Solid waste (compost) disposal areas Paddock 18 and 20	(a) Only compost may be spread to the designated solid waste disposal areas (Paddock 18 and 20); (b) Compost must be evenly spread at a rate no greater than 17.27 m^3/ha per annual period and not within 100 m of a watercourse; (c) Raw manure and un-composted pond sludge (wet or dry) must not be spread on the premises.	As labelled in Figure1, Schedule 1 as: Paddock 18 and Paddock 20
Retention basin wastewater irrigation area (L1)	(a) Only wastewater from the retention basin may be irrigated; (b) Irrigation must not be undertaken during, or for at least 24 hours following, a rainfall event of 2 mm or more; (c) Irrigation must occur on a rotational basis, ensuring that areas are not irrigated for at least 24 hours between applications; (d) No irrigation generated run-off occurs beyond the boundary of the irrigation area (L1); (e) Vegetation in the irrigation area (L1) is harvested at least once per annual period; (f) No soil erosion occurs; (g) No flood irrigation is permitted; (h) Irrigation must not occur on land that is already waterlogged; (i) Irrigation must only occur on healthy vegetation to ensure uptake of water and nutrient.	As labelled in Figure 2, Schedule 1 as: L1

7. The licence holder must ensure that treated wastewater discharged via irrigation does not exceed the limits specified in Table 5 for each of the corresponding parameters at the location specified in Table 5.

Table 5: Irrigation emission discharge limits

Emission point reference and location on premises map	Parameter	Loading Limit
L1 (Irrigation area) Map 1 Schedule 1	Total nitrogen	<300 kg/ha/annual period
	Total phosphorus	<50 kg/ha/annual period

Monitoring

General monitoring

8. The licence holder must ensure that:

(a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
(b) all surface water sampling is conducted in accordance with AS/NZS 5667.6;
(c) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
(d) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
(e) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured.

9. The licence holder must ensure that monthly monitoring is undertaken at least 15 days apart.

10. The licence holder must ensure that all monitoring equipment used on the premises to comply with conditions of this works approval is calibrated in accordance with the manufacturer's specifications.

11. The licence holder must, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

Monitoring of emissions to land

12. The licence holder must monitor emissions in accordance with the requirements specified in Table 6 and record the results of all such monitoring.

Table 6: Emissions and discharge monitoring

Discharge point	Monitoring location	Parameter	Frequency	Averaging period	Unit
M1 – retention basin Schedule 1 Figure 2	Retention basin	Total nitrogen	Monthly when irrigating	Grab sample	mg/L
		Total phosphorus			
		BOD			
		Total dissolved solids			
		Total suspended solids			
		Potassium			
		pH[1]			No unit
		E. coli			CFU/100mL
D2 – Flow meter on	Flow meter	Volumetric flow rate (cumulative)	Continuous When	Daily	kL/day

Discharge point	Monitoring location	Parameter	Frequency	Averaging period	Unit
outgoing irrigation pipe as outlined in Schedule 1 Figure 2			discharging		

Note 1: In field non-NATA accredited analysis permitted for pH

Surface water sampling

13. The licence holder must undertake the surface water sampling in Table 7 using the services of a certified environmental scientist and record all the results of such monitoring specified in that table.

Table 7: Surface water monitoring

Monitoring location	Parameter	Frequency	Unit	Averaging period
SM1 (upstream of feedlot) SM2 (downstream of feedlot) as shown in Figure 2, Schedule 1	pH[1]	In each monthly period when there is flow	No unit	Spot sample
	Electrical conductivity		dS/m	
	Total nitrogen		mg/L	
	Total phosphorus[2]			
	Total dissolved solids			
	Total suspended solids			
	BOD			
	E. coli		CFU/100mL	

Note 1: In field non-NATA accredited analysis permitted for pH
Note 2: Limit of detection for analysis of total phosphorous must be ≤0.01 mg/L

Records and reporting

14. The licence holder must record the following information in relation to complaints received by the works approval 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.

15. 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 to this licence;
(b) the works conducted in accordance with condition 2;
(c) any maintenance of infrastructure that is performed in the course of complying with condition 1;
(d) monitoring programmes undertaken in accordance with conditions 9 and 10, and
(e) complaints received under condition 12.

16. The books specified under condition 13 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 works approval holder for the duration of the licence; and
(d) be available to be produced to an inspector or the CEO as required.

Reporting

17. 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 30 days after the end of that annual period an Annual Audit Compliance Report in the approved form.

18. The licence holder must submit to the CEO by no later than 30 days after the end of each annual period, an Annual Environmental Report for that annual period for the conditions listed in Table 8, and which provides information in accordance with the corresponding requirement set out in Table 8.

Table 8: Annual environmental report

Condition or Table	Parameter per annual period
-	Monthly number of cattle held within the feedlot.
	Annual numbers of deceased animals buried on site.
1, Table 1	Record of feedlot pen cleaning events (item 1d)
1 Table 1	Record of de-sludging events and the volume (m^3) of sludge removed from the retention basin. (item 5e)
6	Volume (m^3) of compost spread to Paddocks 18 and 20. Type (species) of crop(s) harvested within irrigation area (L1). Month the crop(s) were harvested within irrigation area (L1). Volume/mass (tonnes) of harvested biomass within irrigation area (L1). The amount of nitrogen and phosphorus removed from the irrigation area (L1) from the harvesting activities.
7	Tabulated loadings of nitrogen and phosphorus applied to irrigation area (L1) including an explanation of the basis for determining loading rates.
9	Irrigation wastewater monitoring data in tabulated and graphical formats including the sampling date. As assessment and interpretation of the data including comparison to historical trends. Copies of laboratory analysis reports. Volume (kL) of wastewater applied to irrigation area (L1) in daily and monthly tabulated form.
10	Surface water monitoring data in tabulated and graphical formats including the sampling date. As assessment and interpretation of the data including comparison to historical trends. Copies of laboratory analysis reports.
12	A summary of complaints recorded for the annual period.

Definitions

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

Table 9: Definitions

Term	Definition
AHD	Australian Height Datum
annual period	means a 12-month period commencing from 1 June until 31 May of the immediately following year
annual exceedance probability (AEP)	means the probability that a given rainfall total accumulated over a given duration will be exceeded in any one year
AS/NZS 5667.1	means the current version of Australian/New Zealand Standard AS/NZS 5667.1 *Water Quality – Sampling – Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples*
AS/NZS 5667.6	means the current version of Australian/New Zealand Standard AS/NZS 5667.6 *Water Quality – Sampling – Guidance on sampling on rivers and streams*
AS/NZS 5667.10	means the current version of Australian/New Zealand Standard AS/NZS 5667.10 *Water Quality – Sampling –Guidance on sampling wastewaters*
AS/NZS 5667.11	means the current version of Australian/New Zealand Standard AS/NZS 5667.10 *Water Quality – Sampling –Guidance on sampling of groundwaters*
averaging period	means the time over which a limit or target is measured or a monitoring result is obtained
BOD	Biochemical oxygen demand
books	has the same meaning given to that term under the EP Act
cattle rotation	means the time period in which beef cattle are confined in a feedlot pen for the purposes of increasing the animals weight for market sale
CEO	means Chief Executive Officer. CEO for the purposes of correspondence means: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
certified environmental scientist	means a qualified environmental scientist who: • holds a current science tertiary qualification; and • has demonstrated experience in water sampling in accordance with Australian Standard 5667
certified surveying professional	means a qualified surveying professional who: • holds a current surveying tertiary qualification; and • has a minimum of three years' experience in working in the field of surveying
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)
Compost	means a solid organic material that has undergone controlled aerobic and thermophilic biological transformation through the composting process to achieve pasteurisation and reduce phytotoxic compounds

Term	Definition
Composting	means the process by which waste organic materials are microbiologically transformed under controlled aerobic conditions
controlled drainage area	means the area on the premises that drains to the retention basin and includes pens, lane ways, manure storage areas, main drain and the retention basin.
Condition	means a condition to which this Licence is subject under s.62 of the EP Act.
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.
Discharge	has the same meaning given to that term under the EP Act.
dS/m	Deci siemens per metre
E. coli	*Escherichia coli* (bacteria)
emission	has the same meaning given to that term under the EP Act.
EP Act	means the *Environmental Protection Act 1986* (WA)
feedlotting	means a confined area with watering and feeding facilities where cattle are hand or mechanically fed for the purpose of beef production, including covered and uncovered areas. Feedlotting is considered when holding cattle for the purposes of beef production at a stocking rate of greater than 1.4 SCU per hectare in the Cowaramup area.
Freeboard	means the distance between the maximum water surface elevation and the top of retaining banks or structures or spillway at their lowest point.
Grab sample	means a discrete sample representative at the time and place at which the sample is taken.
Healthy vegetation	means vegetation that is living or can grow and produce.
Licence	refers to this document, which evidences the grant of the licence by the CEO under s.54 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
main drain	Main drain is part of the controlled drainage area that receives drainage from the feedlot pens and 11AS and conveys runoff to the retention basin.
mg/L	means milligrams per litre
monthly period	means a one month period commencing from the first day of a month until first day of the immediately following month.
National Guidelines	means the document entitled *National Guidelines for Beef Cattle Feedlots in Australia*, Meat & Livestock Australia Limited, June 2012
NATA	means the National Association of testing Authorities, Australia
NATA accredited	means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis.
permeability	means the soil permeability is a measure indicating the capacity of the soil or rock to allow fluids to pass through it. (Code of Practice Beef Feedlots, 2012)
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.
prescribed premises	has the same meaning given to that term under the EP Act.

Term	Definition
qualified professional	means a certified professional who: • holds a current engineering, environmental science or agricultural science tertiary qualification, and • has a minimum of three years' experience in working in their field of expertise
retention basin	means a pond designed to capture and store runoff from the feedlot operation as labeled retention basin in Schedule 1 and Map 2
Standard Cattle Unit (SCU)	means a Standard Cattle Unit which is equivalent to an animal with a liveweight of 600 kg and calculated using the method in the *National Beef Cattle Feedlot Environmental Code of Practice*, Meat & Livestock Australia Limited, June 2012
sludge	means accumulated solids separated from effluent during wastewater storage
solid waste	means waste in a solid form, i.e., spadeable
WSA	Waste Storage Area

END OF CONDITIONS

Schedule 1: Maps

Premises map

The premises boundary is outlined in pink in the map below (Figure 1).

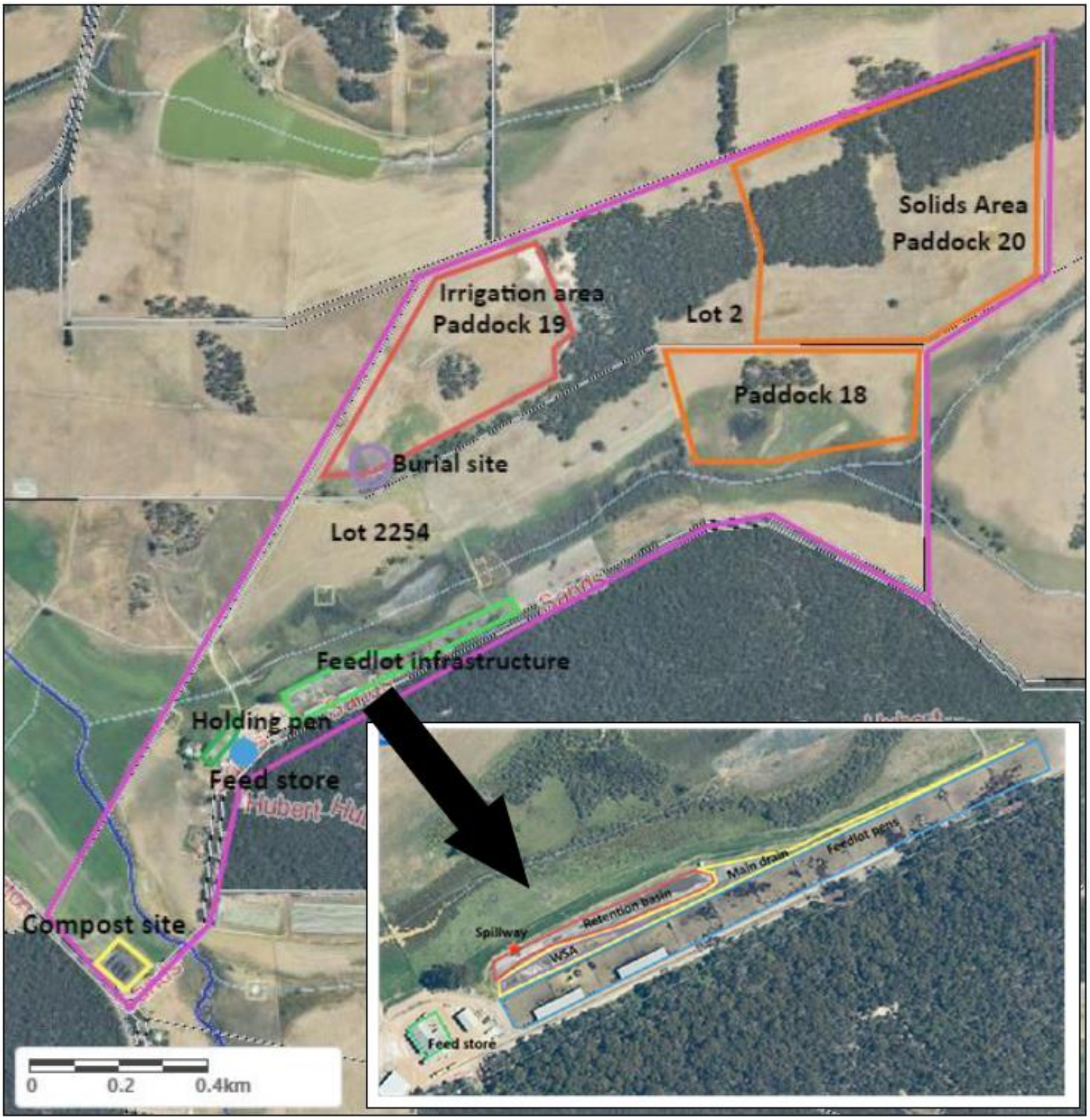

Figure 1: Premises layout over the two lots. In the larger map, paddocks 18 and 20 are outlined in orange indicate solids application to land areas. Outlined in red is Paddock 19 which receives wastewater irrigation. The burial site is outline as a purple circle. The now ceased compost facility is outlined yellow, the Feedlot infrastructure is coloured green. In the smaller map the red star indicates the spillway.

Water quality monitoring reference map

The water quality monitoring sites are illustrated in Figure 2 below.

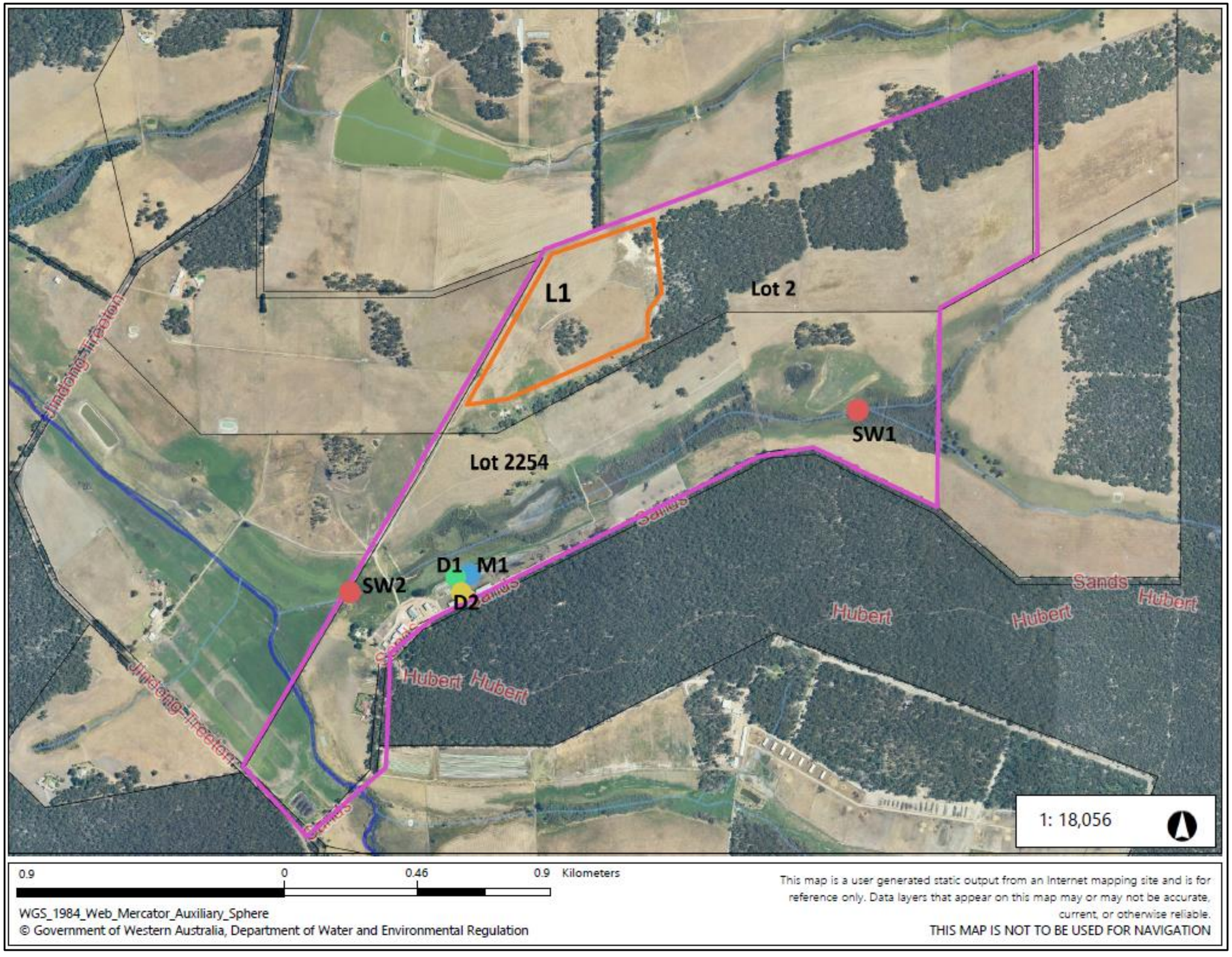

Figure 2. Monitoring locations. Red circles indicate surface water sampling locations, SW1-2 is taken from within Lot 2254. M1 is the wastewater sample location for the retention basin, D1 is the irrigation pump, D2 is the flow meter and L1 is the irrigation area