



Application for a licence amendment

Division 3, Part V *Environmental Protection Act 1986*

Licence number	L9137/2018/1
Licence holder	Semini Enterprises Pty Ltd
ACN	069 792 981
DWER file number	DER2018/000869
Premises	Semini Cattle Feedlot 41 Sands Road TREETON WA 6284
Date of report	6 August 2024
Status of report	Final

Amendment description

This amendment is made pursuant to section 59 of the *Environmental Protection Act 1986* (EP Act) to amend the existing licence issued under the EP Act for a prescribed premises as set out below. This notice of amendment is hereby given under section 59B(9) of the EP Act.

This amendment was initiated by the licence holder and is limited to the consideration of the matters included in the application, including a 'proposed draft licence' which the licence holder has prepared.

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://www.der.wa.gov.au>.

Purpose and scope of assessment

Semini Enterprises Pty Ltd (licence holder) is seeking changes to its existing licence (L9137/2018/1) following a self-audit of the facility against the *National Guidelines for Beef Cattle Feedlots in Australia* (MLA 2012) (National Guidelines) and the preparation of a nutrient and irrigation management plan (NIMP). An application has been submitted for the following:

- update to the registered business address of the premises, and request for a 10-year licence;
- administrative changes suggested by the licence holder to 'tidy up' the licence;
- removal of conditions considered by the licence holder to be redundant;
- inclusion of a winter storage dam that was constructed on the premises in 2022 without approval;
- substituting the term pond 'overtopping' with 'spilling', and updated definitions;
- addition of another carcass disposal pit, as the current one is nearing capacity;
- removal of completed audit and works conditions;
- including authorisation for limited irrigation of effluent over the premises during winter;
- including the use of a soil moisture meter;
- including authorisation for spreading raw manure over the premises;
- including a 3-year rolling average for the application of N & P to land from irrigation of effluent;
- removal of chemical analyses considered by the licence holder to be redundant;
- removal of complaints management requirements;
- removal of the requirement for a consultant to collect surface water samples; and
- addition of the recording of any spillage events from the retention basin and the winter storage dam.

Background

The licence holder operates an open-air cattle feedlot in the rural locality of Treeton, about 10 km east of Cowaramup. The feedlot was established in 1996 without a works approval; the premises was first licensed under the EP Act as a pre-existing facility in 2005, with an arbitrarily defined operating capacity of 2,000 animals.

The premises is located on the Blackwood Plateau south of the Whicher Scarp, at the base of a valley, with the feedlot itself sitting within the headwaters of the Carburnup River. The feedlot is located in a high-risk environment, due to high rainfall and lack of separation to a locally significant watercourse.

The department has for years expressed concern over the siting and design of this feedlot, which is not commensurate with the high-risk environment in which it is located. It is unlikely the department today would support a proposal for a similar feedlot in such a high-risk environment.

In 2021, the department reviewed the licence and determined that significant improvements

were required to feedlot infrastructure and operational controls, including the preparation of a self-audit against the National Guidelines and submission of an updated nutrient management plan (NMP).

The licence holder submitted the results of the self-audit in January 2023 which found, in their opinion, the feedlot to mostly comply with the National Guidelines. However, the department's review found many of the licence holder's findings were unjustified and did not demonstrate how many of the elements of the National Guidelines had been attained, or if not attained, how they were otherwise acceptable. Some of the licence holder's findings of 'fit for purpose' were also based only on assumptions and/or anecdotes and not evidence-based information.

The licence holder submitted the NMP in March 2023, which in the department's view, indicates the scheduling and rates of irrigation – particularly during the winter months – are principally to manage the volumes of effluent runoff from the feedlot pens, rather than matching the seasonal evapotranspiration rates and the water and nutrient uptake needs of a crop or pasture (plan is not nutrient neutral), due mainly to there being insufficient capacity to store effluent during the winter months.

The licence holder has subsequently prepared a 'two-year environmental action plan' to address the items it had identified in the self-audit as requiring improvement, the NMP, and other actions following discussions with the department.

The licence holder has also submitted their own marked-up version of the licence, with suggested changes throughout, for the department's consideration.

Proposed amendments

Administrative changes to address and duration

The licence holder requests the licence be updated to reflect a change to the registered business address for Semini Enterprises Pty Ltd.

The licence holder is also seeking a 3-year extension to the current expiry date, such that the duration of the existing licence would be 10 years, to provide for longer term security of the feedlot.

Administrative changes to 'tidy-up' the licence

The licence holder considers the history of the licence prior to 2017 is not relevant to the existing licence and requests this history be deleted.

Removal of redundant conditions

The licence holder considers clause (f) of the 'interpretation' section (page 2 of the licence) makes it unnecessary to define terms in the licence that have "the same meaning given to that term under the EP Act", and requests the following terms be deleted from the definitions: "books", "discharge", "emission", and "prescribed premises".

Inclusion of the winter storage dam

The licence holder requests the dam it constructed on the premises in 2022 be added to the licence as authorised infrastructure. The licence holder advises the dam was constructed to provide additional capacity for storing effluent runoff from the feedlot pens such that it can be irrigated during the summer months, rather than winter. The dam also provides additional storage capacity, so the feedlot's water containment system does not spill to the environment more frequently than once every 10 years.

The licence holder also proposes to install permanent pumping equipment next to this dam to facilitate operation of a spray irrigator on paddock 19, and should it be approved, requests that effluent irrigated to this paddock be sampled from this dam, rather than the retention basin.

Inclusion of the term 'spilling'

The licence holder requests the term 'overtopping', which is used throughout the existing

licence in reference to when the retention basin has reached its capacity and can no longer hold inflowing water, be replaced with 'spill' and 'spilling', as this is consistent with the terms used in the National Guidelines. Veracity

Recording of spillage events

The licence holder considers the feedlot is designed to spill water to the environment once its capacity has been exceeded after a greater than 1:10 year storm event, and suggests a condition be added to the licence to require notification to the department after such an event and to also record that event.

Additional burial pit

The licence holder requests approval to establish a new carcass burial pit, as it anticipates the existing pit will reach capacity within the next 12 – 24 months. The proposed new pit is adjacent to the existing pit.

The licence holder considers the burial pit area to be 'fit for purpose' because it is well separated from groundwater and is in an area of low permeability soils.

Removal of completed audit and works conditions

The licence holder requests the following conditions be deleted, as they relate to actions that have since been completed and the completion dates have since passed:

- condition 2 – installation of a volumetric flow meter on the offtake pipeline of the irrigation pump before 31 December 2021;
- conditions 3 & 4 – submission of a self-audit of the feedlot against the National Guidelines by 31 October 2022;
- condition 5 – submission of a nutrient and irrigation management plan by 31 May 2022.

Irrigation during winter months

The licence holder requests approval for limited irrigation of effluent during the winter months, as proposed by the water balance model and NIMP for the feedlot that have been submitted to the department.

In summary, the following provisions are being requested:

- May, June and July – nominally 10 mm in each month, but a total of 30 mm over the three-month period;
- August – 20 mm; and
- September, October and November – 50 mm in each month, if water is available.

The licence holder advises it has a vested interest in limiting winter irrigation to retain water for summer months.

Inclusion of the use of a soil moisture meter

The licence holder proposes the following regime for the control of winter irrigation, which is requested to be reflected in the licence:

- irrigation must not be undertaken on day during May, June or July which follows more than 5 mm of cumulative rainfall in the preceding 3 days;
- irrigation must not be undertaken on a day when more than 2 mm of rainfall is predicted for the day;
- irrigation events must be at least 4 days apart;
- not more than 30 mm of irrigation (cumulative) shall occur in May, June and July; and
- soil moisture is to be measured before irrigation, after irrigation and recorded in a book.

Permitting the application of manure to land

The licence holder notes the National Guidelines allow for and provide guidance on the

application of raw manure and compost to land, and requests the licence be updated to include the provision for the spreading of raw manure and compost to land on the premises, consistent with the National Guidelines.

Inclusion of a 3-year rolling average for nitrogen and phosphorus application

The licence holder requests the annual nitrogen and phosphorus application rates be averaged over a three-year rolling timeframe, to allow for the natural variability of application rates and the chemical content of the effluent, raw manure, and compost.

Removal of redundant chemical analyses

The licence holder considers that monitoring should focus on phosphorus management and control, and that monitoring of biological oxygen demand, dissolved solids, suspended solids, potassium, *E. coli* and pH are not necessary in effluent applied to land because phosphorus is the controlling parameter.

The licence holder also considers that surface water sampling should only be conducted when there is an established flow of water.

Removal of complaints conditions

The licence holder advises the feedlot has not received any complaints since the commencement of operations and considers the requirement to investigate and record complaints is redundant and requests these conditions be deleted from the licence.

Removal of requirement for a consultant to collect surface water samples

The licence holder proposes to use staff trained to take surface water samples in accordance with the relevant Australian Standards and requests the current requirement for a consultant to take samples be deleted from the licence.

Decision

Administrative changes to address and duration

The registered business address on the licence has now been changed from 7 Harris Rd to 4 Fairbairn Rd, which is consistent with the current business address registered with the national corporate regulator (i.e., ASIC).

The current licence (L9137/2018/1), which replaced the previous licence that ceased to have effect (L7986/2004/6), was issued with a duration of 12 years, and currently expires in 2030. The delegated officer does not consider extending the duration of the current licence by 3 years will provide any greater certainty for the licence holder and does not consider it necessary to extend the duration of the licence at this stage.

Administrative changes to 'tidy-up' the licence

The licensing history of a premises can provide important context for the department in its decision-making, particularly where the history is complex and where significant licensing decisions have previously been made.

The delegated officer considers the licensing history to be entirely relevant to the current licence and rejects the licence holder's suggestion that the history of the licence prior to 2017 be deleted – ideally, the history would extend as far back as possible in time to provide a complete record of all licensing decisions that have been made for the premises.

Removal of redundant conditions

The delegated officer agrees with the licence holder's suggestion that it is unnecessary to include terms in the definitions of the licence that have "the same meaning given to that term under the EP Act".

As such, the following terms have been deleted from the definitions: "books", "discharge",

“emission”, and “prescribed premises”.

Inclusion of the winter storage dam

The delegated officer notes this dam was constructed by the licence holder for the purpose of providing additional effluent storage capacity, where effluent would be transferred from the existing retention basin to the new dam to ensure adequate freeboard is maintained on the retention basin.

The delegated officer also notes this dam was constructed without a works approval; therefore, its design and construction standard were not assessed by the department, and that it is currently being used by the licence holder for storing effluent that has been transferred from the retention basin, and irrigating effluent from, without the necessary authorisation through the licence.

Through this application, the licence holder has provided further technical information on the as-built the dam, which the delegated officer has reviewed and considers to be acceptable in demonstrating the dam is sufficiently sized and is fit-for-purpose.

The licence has therefore been amended to include the winter storage dam as authorised infrastructure – the licence holder has been informed of the potential penalties (of constructing critical containment infrastructure without a works approval) should similar allegations be proven in the future.

Additionally, the inclusion of this dam on the licence in no way provides a defence for the potential offences under section 53 of the EP Act for constructing, installing or altering any equipment on the premises for the storage, handling, transport or treatment of waste prior to, and for the purpose of, the discharge of waste into the environment.

Inclusion of the term ‘spilling’

The delegated officer has no objection to replacing the term “overtopping” with “spill” and “spilling” throughout the licence, noting this does not change the original intent of the subject conditions.

Recording of spillage events

The delegated officer does not object to including a notification condition on the licence for spillage events; however, the inclusion of such a condition must not be understood as providing authorisation or a defence for allowing effluent to discharge into the adjacent watercourse.

Although the retention basin may be designed to spill no more frequently than once every 10 years – which is acceptable from a design perspective – it still should be managed such that it doesn’t spill that frequently (given its purpose is for retention and not evaporation). Being a retention basin there should be options available for managing effluent levels prior to the freeboard being exceeded, rather than just allowing it to spill into a watercourse – if there are no functional disposal options, then the basin should be designed for evaporation.

Conditions will be imposed on the licence to ensure effluent levels are managed such that it does not spill to the adjacent watercourse, i.e., effluent is transferred to the winter storage dam to ensure a minimum operational freeboard of 300 mm is maintained at all times.

Additional burial pit

The delegated officer notes the licence holder’s view the burial pit area is “fit for its purpose” on the assumption that it is well separated from groundwater and is in an area of low permeability risk.

Prior to consideration of authorising an additional, second burial pit, the licence holder is required to submit evidence-based information of the actual pit site, to demonstrate the permeability of the soils and depth to groundwater, such as the results of drilling logs and soil profile characteristics.

Alternatively, the licence holder is encouraged to consider constructing a purpose-built hardstand pad for composting deceased animals, consistent with the National Guidelines.

On these grounds, no changes have been made to the licence.

Removal of completed audit and works conditions

Given the flow meter has been installed and the infrastructure audit and NIMP have been submitted, the delegated officer agrees that conditions 2, 3, 4 & 5 have been completed and can be deleted from the licence.

Irrigation during winter months

The delegated officer considers that conceptually, the proposed irrigation rates could be acceptable under precision management that would require appropriate data collection and analysis in the irrigation decision making, and it also would be dependent on pasture growth rates and pasture species selection to suit – this information would be required to demonstrate how irrigation during winter could be acceptable.

However, the delegated officer is mindful that according to the weather data from 2013 – 2023, there was not a single year where evaporation exceeded rainfall during the months of June, July and August, and in the majority of these years, each of these months had more than 20 days with rain – indicating it is highly unlikely that irrigation will be required during these months.

On these grounds, no changes have been made to the licence.

Inclusion of the use of a soil moisture meter

The delegated officer considers the use of a soil moisture meter (or the installation of a digital network of soil moisture monitors) has merit; however, it is unclear how the data will be used to influence irrigation scheduling.

On these grounds, no changes have been made to the licence.

Permitting the application of manure to land

The delegated officer does not object in principle to the application of raw manure to land within the premises boundary, providing there is a detailed nutrient management plan in place that identifies the limiting factor and demonstrates how nutrients added to the landscape are subsequently removed.

In the absence of a detailed nutrient management plan for raw manure, no changes have been made to the licence.

The delegated officer reiterates that only material meeting the definition of 'compost', as defined in the existing licence, may be spread on paddocks 18 and 20, in accordance with condition 2, i.e., raw, or aged manure does not meet the definition of 'compost'.

Inclusion of a 3-year rolling average for nitrogen and phosphorus application

The delegated officer considers a 3-year rolling average for the application of N & P to be inappropriate from a nutrient loss perspective for unstable waste streams such as raw manure and effluent, as opposed to a stable product such as compost. It would also need to be demonstrated the soil is capable of storing the applied nutrients and leaching below the root zone will not occur.

On these grounds, no changes have been made to the licence.

Removal of redundant chemical analyses

Whilst it is agreed the main concern is runoff and leaching of nutrients (particularly nitrate-nitrogen and available phosphorus) into the environment, it is important the exact composition of the effluent being applied to land is known, as there are other parameters within feedlot effluent that can influence the sustainability of an irrigation area, including:

- biochemical oxygen demand – continued overloading with organic matter can limit the effective life of a reuse area by physically clogging soil pores, favouring anaerobic soil microbes that lead to slimy bacterial scum coating the soil, blocking pores and closing up cracks. High organic loading can also cause off-site odour impacts;
- pH, which influences the availability of nutrients and other elements to plants – it may inhibit the availability of desirable nutrients or increase the availability of toxic elements;
- potassium, which can contribute to the salinity of effluent and in excess can adversely affect the uptake of other nutrients by plants and soil stability;
- total dissolved solids, which provide a guide to the salinity of the effluent; reuse areas should not show increases in soil salinity that will adversely impact on the productivity of the land over the long term; and
- total suspended solids, which provide a guide to the level of organic and inorganic material present within the effluent. Higher concentrations of suspended solids can clog irrigation devices and cause operational problems with irrigation schemes.

Monitoring of physical stressors within the surface water samples is also considered critical for demonstrating whether the feedlot is impacting on the watercourse (e.g. retention basin spills, runoff of effluent, etc.).

Additionally, biochemical oxygen demand, biostimulants (phosphorus, total nitrogen), total suspended solids, total dissolved solids, and E coli bacteria are kinds of waste listed under Schedule 4, Part 3 of the Environmental Protection Regulations 1987 in which annual licence fees are payable when discharged from a prescribed premises, and which the department requires accurate measurements for fee calculation purposes.

Given the location of the feedlot and the high risk of effluent discharging from the retention basin into the watercourse, the delegated officer also considers it critical that monitoring of the watercourse is routinely conducted at (or shortly after) the first break of the season, during the period of flow, and once the flow has stopped, for the purpose of providing assurance over the controls that are in place to ensure the health of the waterway is being protected. The collected data is also fundamental for demonstrating the overall health of the waterway and understanding how the quality of the water is changing over time.

On these grounds, no changes have been made to the licence.

Removal of complaints conditions

The obligation to record and investigate complaints is a requirement of most licences issued under Division 3, Part V of the EP Act, particularly for activities that have a high risk of causing nuisance to off-site human receptors, such as intensive animal keeping.

A lack of complaints received by a licence holder is in itself not a reliable indicator of the risk that a premises poses to off-site receptors or that a premises is not causing off-site nuisance impacts; the delegated officer may consider it unnecessary to include complaints management conditions in rare circumstances where there are no sensitive receptors at risk of being impacted.

On these grounds, no changes have been made to the licence.

Removal of requirement for a consultant to collect surface water samples

Due to the high-risk environment in which the feedlot is located, in addition to the likelihood the feedlot is causing, or significantly contributing to, increasing nutrient concentrations within the Carburnup River (refer to October 2021 Decision Report), it is critical the delegated officer has confidence and assurance in the veracity of the results of surface water sampling at the premises; hence why sampling has been required to be conducted to date by a person that is independent of the licence holder.

The licence holder has declared that it has people within its operation that are trained in sampling and testing of water and has provided 'proof of competency' for those people, as

certified by a NATA-accredited laboratory that provides this service (Environmental and Agricultural Testing Services).

The delegated officer has removed the requirement for surface water sampling to be conducted by a certified environmental scientist; however, advises the department will be conducting routine, targeted surface water sampling to verify impacts and the results provided by the licence holder going forward.

Other changes

In amending the licence, the delegated officer has also:

- removed references to the former 'compost pad area', as the licence holder ceased using this area in 2021;
- updated the premises map, including changes to irrigation area in paddock 19 (excising the winter storage dam area);
- revised condition numbers, and removed any redundant conditions and realigned condition numbers for numerical consistency; and
- corrected clerical mistakes and unintentional errors.

The decision report for the original licence will remain on the department's website for future reference and will act as a record of its decision making.

Consultation

The licence holder was provided with drafts of a revised licence and this report on 18 April 2024 and responded with the following representations, as summarised below:

"The proposed amended licence:

- is not factually correct as to the infrastructure that makes up the feedlot, as there is a winter storage dam for water, and irrigation water to paddock 9 is pumped from the winter storage dam and not the retention pond;
- contains requirements to build infrastructure in unreasonable or unachievable timeframes;
- has definitions that are not consistent with the National Guidelines;
- curtails existing farming practices on areas outside of the feedlot without identifying unreasonable environmental impacts;
- contains second order approvals;
- erroneously refers to this "Works Approval" in conditions;
- refers to items of infrastructure that do not exist on the premises; and
- contains typographical errors".

The department considered the licence holder's representations and an updated second version of the licence was provided on 22 July 2024; with exception of a few typographical corrections, the licence holder advised it had no further comment to make and waived the remainder of the consult period.

Conclusion

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

Summary of amendments

The below table provides a summary of the amendments and will act as a record of implemented changes. All changes have been incorporated into a revised licence as part of the amendment process.

Old condition no.	New condition no.	Amendments
Cover page	Cover page	Registered business address changed from 7 Harris Rd to 4 Fairbairn Rd
Condition 1, Table 1	Condition 1, Table 1	Clause 5(d) – effluent must only be transferred to the winter storage dam
		Clause 5(e) – must not cause effluent from the retention basin to discharge to the watercourse
		Clause 5(f) – changed the term “overtopping” to “spilling”
		Clause 6 – added winter storage dam as authorised infrastructure
		Clause 6(a) – added requirement to maintain pond for the purpose of holding effluent
		Clause 6(b) – added requirement to maintain minimum freeboard
		Clause 7(a) – changed ‘retention basin’ to ‘winter storage dam’, and changed location details
		Clause 7(b) – removed requirement to record pump hours, prior to installation of flow meter, changed location details
		Clause 8(a) – removed the term “once installed” and changed ‘retention basin’ to ‘winter storage dam’ and ‘D2’ to ‘D1’
		Clause 10 – removed reference to ‘compost pad’
		Infrastructure locations updated throughout table
Condition 2	-	Deleted (requirement to install a flow meter)
Conditions 3 & 4	-	Deleted (requirement to submit a self-audit)
Condition 5	-	Deleted (requirement to submit a NIMP)
Condition 6, Table 4	Condition 2, Table 2	Discharge locations updated and changed ‘retention basin’ to ‘winter storage dam’
Condition 7, Table 5	Condition 3, Table 3	Emission point reference updated
Condition 12, Table 6	Condition 8, Table 4	Discharge point references updated and changed ‘retention basin’ to ‘winter storage dam’
-	Condition 9	New condition – requirement to record flow meter readings and take photographs of each monthly reading
-	Condition 10	New condition – requirement to maintain the flow meter in good working order and notify the CEO of meter malfunctions
-	Condition 11	New condition – requirement to not do anything to the meter that would prevent it from accurately measuring the quantity of effluent
Condition 14	Condition 12	Deleted requirement for surface water sampling to be taken by a certified environmental scientist
Condition 15(b)	Condition 13(b)	Deleted (requirement to keep records of works)
-	Condition	New condition – requirement to keep accurate and auditable

	14(e)	records of monthly flow meter readings
-	Condition 16	New condition – requirement to notify the CEO of retention pond spilling
Condition 18, Table 8	Condition 22, Table 6	New condition – requirement to provide photographic evidence of monthly flow meter readings
Definitions	Definitions	Definitions removed: 'books', 'certified environmental scientist', 'compliance report', 'discharge', 'emission', 'National Guidelines', 'prescribed premises', 'qualified professional engineer'
		Definitions added: "AS 1289", "qualified professional engineer"
		Definitions modified: "compliance reports"
Schedule 1: Maps	Schedule 1: Maps	Premises map updated with more recent imagery, location of winter storage dam added, location of former compost pad deleted