

# **Statement of Environmental Effects**

Frampton Flat Pty Ltd

Rev C P002097 1 July 2025





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### **EXECUTIVE SUMMARY**

### **Overview**

Frampton Flat Pty Ltd (Frampton Flat) (ABN 27 168 379 922) is an Australian, family owned and operated company.

Frampton Flat has operated the existing Frampton Flat Feedlot at 513 Tullibigeal Road, Tullibigeal, since 2005 in accordance with Development Consent 92/2004 and Environment Protection Licence 12319 (EPL 12319).

Frampton Flat Pty Ltd seeks to modernise and expand the existing Frampton Flat Feedlot by utilising the existing farm building as approved under DA 6/2024 as a covered housing system feedlot.

The proposed modernisation and expansion includes:

- > Use of an existing building for the purpose of a covered housing system.
- > An average stocking density of 19m<sup>2</sup>.
- > A minimum stocking density of 5m<sup>2</sup>.
- > A maximum capacity of 4,500 head of cattle.

The minimum stocking density of 5m<sup>2</sup> would only be used within the covered housing system as a response to excessively wet periods which have a detrimental effect on animal welfare.

The use of the covered housing system and reduction of the average stocking density would allow for the capacity of the feedlot to increase from 2,800 to 4,500 head of cattle.

As outlined in the Meat and Livestock Australia *Best Practice Design and Management Manual* (MLA, 2023), covered housing systems offer significant benefits in terms of animal welfare, environmental protection, and operational efficiency. By providing shelter from heat, rain, and mud, covered housing systems create a more controlled environment that supports optimal cattle health and performance.

Cattle housed under cover experience reduced stress, improved feed conversion, and cleaner hides, which directly contributes to better carcass quality at processing. The ability to maintain consistent pen conditions year-round also supports more predictable weight gains and turnoff schedules, reducing production risk and allowing for higher throughput in intensive operations.

In addition to cattle and productivity gains, covered systems deliver strong environmental and compliance advantages. The exclusion of rainfall from feedlot pens greatly reduces the volume of effluent generated, allowing for smaller controlled drainage areas and more manageable nutrient loads. Manure quality is also improved due to reduced moisture content and soil contamination, increasing its value for reuse.

Roofs can support stormwater harvesting and solar PV installation, providing both water security and energy cost savings. The consistent pen conditions also reduce the frequency and cost of maintenance, and support compliance with industry and regulatory expectations around sustainability, odour management, and resource efficiency.

This Statement of Environmental Effects and accompanying technical reports demonstrate that the proposed modernisation and expansion of the Frampton Flat Feedlot does not significantly increase the environmental impacts of the existing or approved development.



### 1. INTRODUCTION

# 1.1 The applicant

Frampton Flat Pty Ltd (ABN 27 168 379 922) is an Australian, family owned and operated company.

Frampton Flat has operated the existing Frampton Flat Feedlot at 513 Tullibigeal Road, Tullibigeal, since 2005 in accordance with Development Consent 92/2004 and Environment Protection Licence 12319 (EPL 12319).

# 1.2 The existing development

The existing Frampton Flat Feedlot is a Level 1 feedlot accredited under the National Feedlot Accreditation Scheme (NFAS), a quality assurance scheme independently managed and audited by AUS-MEAT. Accreditation through the NFAS scheme ensures ongoing compliance with best practice animal welfare and environmental standards.

The NSW Environment Protection Authority (NSW EPA) identifies EPL 12319 as a level 1 licence. A level 1 licence is only granted for an activity that poses a low risk to the environment because it generates minimal or no discharges due to its nature, or because there are good environmental controls and management procedures in place.

Development Consent 92/2004 and EPL 12319 allow for a maximum capacity of 2,800 head within the existing Frampton Flat Feedlot.

The existing Frampton Flat Feedlot is set within Frampton Flat broadscale agricultural operation, which comprises a total area in the order of 10,000 ha. The agricultural operation is characterised by large, extensive landholdings used primarily for grazing and dryland cropping.

# 1.3 Simple description of the development

Frampton Flat seeks to modernise and expand the existing feedlot.

The proposed modernisation and expansion includes:

- > Use of an existing building for the purpose of a covered housing system.
- > An average stocking density of 19m<sup>2</sup>.
- > A minimum stocking density of 5m<sup>2</sup>.
- > A maximum capacity of 4,500 head.

The minimum stocking density of 5m<sup>2</sup> would only be used within the covered housing system to respond to excessively wet periods, which have a detrimental effect on animal welfare.

The use of the covered housing system and reduction of the average stocking density would allow for the capacity of the feedlot to increase from 2,800 to 4,500 head of cattle.

This report is supported by the following plans and technical documents:

- > Project drawings (**Appendix A**)
- > Manure Management Plan (**Appendix B**)
- > Environmental Monitoring Summary (Appendix C)
- Level 1 Odour Assessment (Appendix D)
- > NFAS Accreditation (Appendix E)



### 2. THE SITE AND LOCALITY

# 2.1 Overview

The Frampton Flat Feedlot is located at 513 Tullibigeal Road, Tullibigeal being Lot 19 DP752341. The Frampton Flat Feedlot is approximately 2.5 km northwest of Tullibigeal (**Figure 1**).

The Frampton Flat Feedlot is located at the western extent of the NSW Central West Region, close to the periphery of the NSW Western Region.

The existing conditions of the site are summarised in **Sections 2.2 - 2.8**.

The existing conditions of the site are described in further detail in the Manure Management Plan, provided in **Appendix B**.

### 2.2 Climate

The western extent of the Central West Region is semi-arid, with the climate typically being hot and dry.

Rainfall in the region is low and fairly consistent throughout the year, with an average annual total of 436 millimetres (mm). The mean annual pan evaporation is 1,892 mm, with average monthly evaporation exceeding average monthly rainfall.

Average monthly minimum and maximum temperatures include five months of warm weather from November until March, with average minimum temperatures above 11.5°C and average maximum temperatures above 25.5°C. April to October are typically cooler.

# 2.3 Topography

The topography of the area is gently undulating, with broad plains dominating the landscape.

Topographic data extracted from the Elevation and Depth - Foundation Spatial Data website (ELVIS) demonstrates that the feedlot is generally flat, with a minor slope from southeast to northwest (229 m Australian Height Datum (AHD) to 223 m AHD).

### 2.4 Surface water

There are no major watercourses in close proximity to the feedlot. The Lachlan River is the closest major watercourse, approximately 35 km to the northeast.

Minor drainage lines are mapped to the north and south of feedlot. Drainage lines are typically discontinuous and exhibit limited channelisation, indicative of the low relief of the site and gradient of slopes

Minor drainage lines in the vicinity of the feedlot generally flow from more elevated land to the south of Tullibigeal, towards the northwest (in the general direction of the Lachlan River).



### FRAMPTON FLAT PTY LTD

Frampton Feedlot

Site Plan



Site

Road

Feedlot with Stormwater and Effluent Management

Plan No.	Revision	Date
P001	RevB	19/06/2025

0 200 400 m



### 2.6 Groundwater

Six groundwater bores are located within the site, with a further 12 bores located on adjoining properties.

While six groundwater bores are recorded within the site boundary; a site inspection 21 November 2024 confirmed only four are currently present, two no longer existing on-site. An additional twelve groundwater bores are located on adjoining properties.

Groundwater bores located within the site have a standing water level (SWL) of at least nine (9) m deep, with the first water-bearing zone encountered at a minimum depth of 28 m.

Bores located on adjoining properties are more than 200 m from site and from the manure spreading area. Exceeding the minimum separation distances adopted for the manure application area (100 m) to bores, wells, or springs that supply potable water.

**Table 1 - Groundwater bores** 

Location	Bore ID	Purpose	Standing water level (SWL) (m)	Water bearing zone first encounter (m)
Within	GW700430	Industrial	23	56
the facility	GW701469	Monitoring	9	56
	GW704751	Domestic, industrial, stock	24	53
	GW703612 <sup>1</sup>	Domestic, stock	24	51
	GW700106	Domestic, industrial, stock	26	28
	GW701474 <sup>1</sup>	Stock	9	56
Outside	GW002784	Not known	24.4	63.7
of the facility	GW020937	Not known	NA	NA
(within	GW090063	Monitoring bore	27.3	7
3,000m)	GW002092	Not known	25.9	16.8
	GW020936	Not known	20.7	46
	GW002435	Water supply to Frampton feedlot	22.6	27.4
	GW003536	Not known	44.2	62.5
	GW704386	Domestic, stock	8	20
	GW002559	Not known	16.5	21.3
	GW003093	Not known	NA	58.8
	GW013763	Not known	NA	NA

<sup>&</sup>lt;sup>1</sup> Bore does not exist; this is confirmed from Premise site visit on 21/11/2024.



Location	Bore ID	Purpose	Standing water level (SWL) (m)	Water bearing zone first encounter (m)	
	GW003526	Public / Municipal	NA	NA	
NA: Not available					

## 2.7 Geology

The Tullibigeal 1:100,000 Geological Series Sheet 8231 describes the site geology as being composed of flat to hummocky fossil sandplain.

At depth, it features red brown to brown humic, clayey, silty to fine-grained sand, and silty clay, with abundant regolithic and pedogenic carbonate. The area has been significantly altered by pedogenesis.

### 2.8 Soils

### 2.8.1 SOIL CAPABILITY

The Land and Soil Capability (LSC) assessment scheme uses the biophysical features of land and soil, including landform position, slope gradient, drainage, climate, soil type and soil characteristics, to derive classes for a range of land and soil hazards (Office of Environment and Heritage (OEH), 2012).

The Land and Soil Capability of the site is Class 3, having a moderate limitation.

### 2.8.2 SOIL CLASSIFICATION

The Australian Soil Classification (third edition) categorise the soil across the site as Calcarosols, which are often calcareous throughout the soil profile. Calcarosols are defined as soils that:

- > Are either calcareous throughout the solum or calcareous at least directly below the A1 or Ap horizon, or a depth of 0.2m (whichever is shallower). Carbonate accumulations must be judged to be pedogenic, i.e. are a result of soil forming processes in situ (either current or relict). Soils dominated by non-pedogenic calcareous materials such as fragments of limestone or shells are excluded.
- > Do not have deep sandy soil profiles that have a field texture of sand, loamy sand or clayey sand in 80% or more of the upper 1.0m.

### 2.8.3 SOIL DATA

Frampton Feedlot monitors the existing solid waste utilisation area as per the requirement of EPL 12319. Monitoring has been undertaken annually since 2005. Monitoring results for June 2024 demonstrate the following:

- > Soil presents a moderate dispersibility;
- Available phosphorus values are high in the topsoil but low in the subsoil, reflecting no need for phosphorus fertiliser;
- > Cation Exchange Capacity (CEC) is low for topsoil and moderate for the subsoil;
- > Soil presents moderately saline conditions;
- Soil presents non sodic conditions;



- > Total nitrogen level is low in the topsoil and in the subsoil;
- > Organic carbon level is low in the topsoil and in the subsoil, reflecting poor to moderate structural condition and low to moderate structural stability;
- Phosphorus sorption capacity is high for topsoil and subsoil, indicating a strong soil ability to retain phosphorus, preventing it from leaching into groundwater or being easily lost from the soil profile; and
- > pH present moderately acid condition for topsoil and neutral condition for subsoil.

### 3. THE DEVELOPMENT

### 3.1 Introduction

Frampton Flat seeks to modernise and expand the existing feedlot by incorporating a covered housing system.

In association with the covered housing system, the proposed modernisation and expansion seeks to reduce the average stocking density of the feedlot from 25.7m<sup>2</sup> to 19m<sup>2</sup> (average) and 5m<sup>2</sup> (minimum).

The minimum stocking density would only be used within the covered housing system as a response to excessively wet periods which have a detrimental effect on animal welfare.

The reduction of the average stocking density would allow for the capacity of the feedlot to increase from 2,800 to 4,500 head of cattle.

# 3.2 Covered Housing System

The building to be used for the covered housing system has been constructed to the immediate east of the existing feedlot pens (**Figure 2**).

The covered housing system includes a concave roof over one row of pens. The covered housing system provides for 1 ha of fully covered pens. A feed alley and other typical feedlot infrastructure adjoins the covered housing system.

The covered housing system has been constructed with solid flooring which will be used in conjunction with loose bedding, typically locally sourced wheaten straw.

If sufficient bedding is used and maintained in a suitable condition, the recommended pen cleaning frequency is at least once every 13 weeks. With a view to further minimising emissions of odour and maximising animal welfare, management of the covered housing system would typically involve pen cleaning every 6 to 8 weeks.

# 3.3 Stocking Density

Stocking density refers to the number of Standard Cattle Units (SCU) kept in a unit of area. The space allowance is the area provided per SCU and is usually expressed as m<sup>2</sup>/SCU. Stocking density and space allowance influence welfare and production as well as the environmental performance of the covered housing system.

The stocking density of the existing feedlot is 25.7m<sup>2</sup>, when operated at a maximum capacity of 2,800 head.



Frampton Flat Pty Ltd Statement of Environmental Effects

The *National Feedlot Design Manual* (MLA, 2016) specifies a maximum stocking density of 2.5m<sup>2</sup> per head/SCU for cattle kept indoors.

Notwithstanding, the minimum standard minimum space allowance of 2.5m<sup>2</sup> per head/SCU, the proposed development seeks to limit SCU to 19m<sup>2</sup> (average) and 5m<sup>2</sup> (minimum). The minimum stocking density of 5m<sup>2</sup> would only be used within the covered housing system as a response to excessively wet periods which have a detrimental effect on animal welfare.





### FRAMPTON FLAT PTY LTD

Frampton Feedlot

Feedlot approved under DA 2004/0092

### Legend

Site

Feedlot Pens

Feed Lanes/Roads

Manure Pad

Sedimentation Pond

Effluent Holding Pond (Option 1)

Effluent Holding Pond Option 2

Feedmill Area Holding Pond

(CDA 2)

#### Controlled Drainage Areas (CDA)

#### CDA 1:

· Feedlot pens

Cattle yards

Manure stockpile

Sedimentation pond

Roads and other hard and soft catchment

Option 1: Calculated using the FSIM model (Lott,

Design volume 23 ML

#### Option 2:

guideline values NSW Agriculture,

#### CDA 2:

Feed processing area

Feed storage area Roads and other hard

and soft catchment

Calculated using (SCARM, 1997 and

Design volume of 10.5 ML

Plan No. Revision Date P002 Rev A 5/06/2025



# 3.4 Operation and Management

### 3.4.1 CATTLE WELFARE

The existing Frampton Feedlot is accredited under the National Feedlot Accreditation Scheme (NFAS).

The NFAS is an independently audited quality assurance program for the Australian lot feeding industry that was initiated by the Australian Lot Feeders Association (ALFA). The ALFA is the peak national body for the Australian cattle feedlot industry.

The NFAS is operated by AUS-MEAT, Australia's leading provider of agribusiness auditing, certification and training services. AUS-MEAT is a non-for-profit organisation, serving every Australian state and Territory and New Zealand.

Critically, the NFAS Accreditation Standards for animal welfare require that appropriate procedures have been implemented to address animal welfare at the feedlot in accordance with the *Australian Animal Welfare Standards & Guidelines for Cattle* (Animal Health Australia, 2016).

The proposed modernisation of the Frampton Feedlot will continue to be operated in accordance with the requirements of the NFAS Accreditation Standards for animal welfare.

### 3.4.2 FEED AND WATER SUPPLY

### 3.4.2.1 Feed Supply

Grain, silage and roughage for the feedlot is primarily sourced from the site and other nearby properties owned or leased by the applicant. Feed additives are sourced locally and are weighed, sampled and tested for quality control on arrival top the feedlot.

Feed consumption in the existing feedlot is around 9,520 tonnes per annum on a dry matter basis. Based on the proposed expansion to 4,500 head, it is anticipated that feed consumption would increase to 15,300 tonnes per annum on a dry matter basis.

Adequate storage for grain, silage and other roughage is available onsite via silos and silage pits.

### 3.4.2.2 Water Supply

The proposed expansion to 4,500 cattle head with an average weight of 500 kilograms (kg), will generate a requirement for 90 ML of water per year based on the Feedlot Guidelines.

A study by Davis, Wiedemann and Watts (2008) identified that the water use for feedlots is closer to  $17 \, \text{ML}/1,000$  head. This results in an annual water use of approximately  $76.5 \, \text{ML}$ .

Water supply for the feedlot is primarily groundwater, with Water Access Licence 28445 (WAL 28445) allowing a total yearly groundwater extraction of 52 ML/year.

The balance of the required volume of water can be sourced from on-site fresh water captured from the covered housing system roof and the local reticulated water supply from Lake Cargelligo (Lachlan Shire Council, 2024) (R.W. Corkery & Company Pty Limited, 1984).



### 3.4.2.3 PEN MAINTENANCE

Pens would be managed to maintain a smooth, hard and uniform interfacial layer of manure and clay at least 20 millimetres deep. This would provide a biological seal and reduce water infiltration and the movement of nutrients and salts into the subsoil.

As manure accumulates in the pens, the surface would be scraped using controlled equipment and pushed into mounds in the centre of the pen. Manure would be removed from the pens at least every six weeks.

While manure harvesting would be carried out at least every six weeks, routine cleaning involving the removal of feed and manure from around feed bunks and fences would be undertaken more frequently. This would minimise odour generation and maintain cattle welfare and performance.

Concrete areas within the pens would also be cleaned frequently as required.

Monitoring of the pen surface would be included as part of the overall monitoring program for the feedlot to ensure effective drainage is maintained. Any areas of pens that become worn and hollowed would be promptly filled and compacted to restore a smooth hard and uniform surface thereby promoting runoff and minimising infiltration of liquid waste. Pen surface monitoring is undertaken by visual inspection and occurs daily.

### 3.4.3 WASTE MANAGEMENT

### 3.4.3.1 OVERVIEW

The feedlot produces two main waste streams, effluent and manure.

Application of effluent and manure to areas growing crops or pasture is regarded as the most efficient and beneficial means of utilising the valuable water, nutrients, and organic components of feedlot by-products. This is consistent with the principles of the integrated waste management hierarchy (i.e., avoidance, recycling, waste to energy, treatment, and disposal), which lists recycling as the second most desirable management option.

### 3.4.4 SOLID WASTES

As per the existing operation, manure is harvested in the existing open feedlot at least every four months, with a greater frequency during the summer months (to provide a maximum manure pack depth of 50 mm).

Manure harvesting in the covered housing system will occur every 6 to 8 weeks, which is more often than the minimum requirements of the Feedlot Guidelines.

All harvested manure will be directly used on-site as soil ameliorants or exported offsite to nearby properties owned by the proponent.

Sales of manure to users other than proponent may occur, depending on their availability and requirements.

The proposed development will generate 1,575 tonnes of manure annually, being an overall increase of 962 tonnes (**Table 2**).



**Table 2 – Manure harvesting** 

Parameter	Units	Value
Cattle	head	4,500
Cattle	SCU	3,915
Harvested yield of manure from feedlots that retain the interface layer	t TS/SCU/year	0.42
Total harvested manure from feedlot	t/year	1,575

The solids spreading area required for nutrient balance is shown in **Table 3**. The total solid spreading rate required is based on:

- > 2.18% nitrogen content in manure
- > 0.8 % phosphorus content in manure

360 ha of dryland cropping is required to obtain a yearly phosphorus balance (**Table 3**). This can be accommodated on-site (202.52 ha) or within the further 10,000 ha of cropping land that is either owned or leased by Frampton Flat Pty Ltd. Properties in the immediate vicinity of the Frampton Feedlot are shown in **Appendix A** and **Table 4**.

Table 3 - Area requirements for solids spreading

Parameter	Units		Nitrogen		Phosphorus	
Nutrient recovery	%	t/year	2.18*	34.3	0.8*	12.6
Nutrient remove by cropping program	kg/	/ha/year	16	52	35	5
Area required for nutrient spreading	ha		2	12	36	0

<sup>\*</sup>Typical composition of Australian feedlot aged (stockpiled) manure - Beef cattle feedlots: waste management and utilisation (Meat & Livestock Australia, 2015);

Table 4 - Land available to Frampton Flat Pty Ltd

Property	Area	Lot/DP
Pettits	667 ha	Lot 1 in DP1213435, Lot 2 in DP1213435, Lot 6 in DP752311 and Lot 9 in DP752311.
Wongalea	738 ha	Lot 29 in DP753111.
Lialeeta	1,057 ha	Lot 1 in DP1213416, Lot 11 in DP753111, Lot 57 in DP753111, Lot 1 in DP753111, Lot 55 in DP753111, Lot 58 in DP753111, Lot 10 in DP753111 and Lot 56 in DP753111.
Glen Douglas	330 ha	Lot 21 in DP753111 and Lot 54 in DP753111
Yapoona	1,702 ha	Lot 11 in DP752313, Lot 18 in DP753111, Lot 13 in DP752313 and Lot 14 in DP753126.
Ben Lomond	1,478 ha	Lot 1 in DP1247558, Lot 12 in DP752313, Lot 10 in DP753126, Lot 14 in DP752313 and Lot 11 in DP753126



Property	Area	Lot/DP
<b>South Pines</b>	289 ha	Lot 19 in DP753126

Waste that meets all the requirements of a resource recovery order/exemption under Clause 92 of the *Protection of the Environment Operations (Waste) Regulation 2014* does not form part of this Development Application and does not require development consent.

### 3.4.5 CATTLE MORTALITY

An existing carcass disposal pit is located to the west of the feedlot.

When required, cattle are removed immediately and placed in the burial pit and covered with dirt.

It is anticipated that cattle mortality rates within the covered housing system will be significantly lower than cattle mortality rates within an open feedlot due to the benefits associated with complete shading.



### 4. STATUTORY PLANNING FRAMEWORK

### 4.1 Introduction

In relation to the proposed development, the relevant legislation includes:

- > The Environmental Planning and Assessment Act 1979 (the 'EP&A Act');
- > The Environmental Planning and Assessment Regulation 2021 (the 'EP&A Regulation');
- > The *Biodiversity Conservation Act 2016* (the 'BC Act');
- > The Lachlan Local Environmental Plan 2013 (the 'LLEP 2013'); and
- > The Lachlan Development Control Plan 2018 (the Lachlan DCP 2018).

# 4.2 Environmental Planning and Assessment Act 1979

### 4.2.1 DESIGNATED DEVELOPMENT

The Environmental Planning and Assessment Act 1979 (the EP&A Act) and Environmental Planning and Assessment Regulation 2021 (the Regulation) identify that development for the purposes of a feedlot is designated development if the feedlot accommodates more than 1,000 head of cattle in a confinement area for rearing or fattening on prepared or manufactured feed.

Designated development requires the preparation of an Environmental Impact Statement (EIS) for an application for development consent.

Ordinarily, a project of this nature would represent designated development, however Section 48 of Schedule 3 of the EP&A Regulation states:

Development involving alterations or additions to development, whether existing or approved, is not designated development if, in the consent authority's opinion, the alterations or additions do not significantly increase the environmental impacts of the existing or approved development.

On the basis that the feedlot is existing and approved, and that the proposed modernisation and expansion does not represent any significant change to the range or scale of impacts associated with the existing and approved use, the development is not considered to represent designated development by reference to Section 48 of Schedule 3 of the EP&A Regulation.

Section 48(2) of Schedule 3 of the EP&A Regulation identifies several matters to be considered by the consent authority when forming its opinion with regards to Section 48(1). The relevant matters are addressed in **Table 5**, which clearly demonstrates that the proposed alterations and additions will not significantly increase the environmental impacts of the existing or approved development.



Table 5 – Section 48(2) of Schedule 3 of the EP&A Regulation

N	<b>Natter</b>	Response
(a)	The impact of the existing development having regard to factors including:	
(i)	including:  Previous environmental management performance, including compliance with the conditions of any consents, licences, leases or authorisations by a public authority and compliance with any relevant codes of practice	Environment Protection Licence 12319  The existing Frampton Flat Feedlot operates in accordance with EPL 12319. The Environmental Monitoring Summary (Premise, 2025) (EMS) provided in Appendix C, describes the environmental performance of the Frampton Flat Feedlot based on monitoring data collected over the past ten (10) years.  The EMS demonstrates:  > Long-term soil and solids monitoring confirms that pH, nutrient concentrations (total nitrogen, nitrate, phosphorus), and salinity remain stable in both topsoil and subsoil, indicating that current manure application practices are not causing degradation of soil health.  > Effluent holding ponds have functioned effectively as evaporative systems, with no recorded overflows or discharges during the past ten years of routine six-monthly monitoring, demonstrating effective effluent containment in accordance with EPL 12319.  > Groundwater monitoring data shows that pH, electrical conductivity, and nutrient levels (including ammonia, nitrate, total nitrogen, and total phosphorus) remain within acceptable thresholds, with minor fluctuations considered typical and subject to ongoing observation.  > No odour complaints have been reported over the past ten years, with routine inspections and operational adjustments ensuring odour risks are proactively managed in line with National Feedlot Accreditation Scheme standards.  > The on-site weighbridge system ensures all manure removed from the premises is accurately recorded and reported, confirming compliance with regulatory requirements and supporting responsible
		waste management practices.
		Development Consent 92/2004  The existing Frampton Flat Feedlot operates in
		accordance with DA 92/2004. DA 92/2004 includes



Matter		Response	
		conditions of consent applicable to construction and operational stages.  Frampton Flat has endeavoured to comply with all relevant conditions of consent since the commencement of operation.  National Feedlot Accreditation Scheme  The Frampton Flat Feedlot is a Level 1 feedlot accredited under the National Feedlot Accreditation Scheme (NFAS), a quality assurance scheme independently managed and audited by AUS-MEAT.  Accreditation through the NFAS scheme ensures ongoing compliance with best practice animal welfare and environmental standards.	
(ii)	Rehabilitation or restoration of any disturbed land	independently managed and audited by AUS-MEAT.  Accreditation through the NFAS scheme ensures ongoing compliance with best practice animal welfare	



Statement of Environmental E			
Matter		Response	
		> Aggregate Stability; and	
		> Bulk Density.	
		Groundwater	
		> pH;	
		> Electrical Conductivity;	
		> Ammonia;	
		> Nitrate;	
		> Total Nitrogen;	
		> Total Phosphorus;	
		> Total Suspended Solids; and	
		> Standing Water Level.	
		Effluent	
		> pH;	
		> EC;	
		> Ammonia;	
		> Calcium;	
		> Magnesium;	
		> Nitrate;	
		> Total Nitrogen;	
		> Orthophosphate;	
		> Total Phosphorus;	
		> Potassium, Sodium; and	
		> Total Suspended Solids.	
		The NSW EPA reviews EPL 12319 every five years, with	
		the most recent review completed in June 2023.	
		Audit	
		While the NSW EPA undertakes regular inspections, a formal audit has not been undertaken.	
(iii)	The number and nature of all past changes and their cumulative effects	The existing Frampton feedlot was approved under Development Consent 92/2004, determined 19 April 2005. The existing Frampton feedlot was developed in 2005 and has continued to operate in accordance with Development Consent 92/2004 and Environment Protection Licence 12319.	
		There have been no changes to the existing Frampton feedlot since it was developed in 2005.	
		Notwithstanding, it is noted that Frampton Flat Pty Ltd has purchased an adjoining property at 112 Burgooney Road, Tullibigeal. The Noise Assessment	



Matter		Response
		Report prepared in 2005 identified this property as the B&M Ridley residence and that the feedlot would result in a sound pressure level of 34.0 dB(A), being 1.0 dB(A) below the project criterion.  Given that 112 Burgooney Road is now owned by Frampton Flat Pty Ltd, it is to be treated as an associated receiver. This contributes to a positive cumulative effect, reducing the likelihood of adverse noise impacts on sensitive receivers and supporting the continued compatibility of the feedlot with surrounding land uses.
(b)	The likely impact of the proposed alterations or additions, including the following:	
(i)	The scale, character or nature of the proposal in relation to the development	Current Stocking Density  The Frampton Flat Feedlot has an approved maximum capacity of 2,800 head, this equates to a stocking density of 25.7m <sup>2</sup> .
		Proposed Stocking Density  The covered housing system has a total area of 1.08 ha.  Based on a maximum stocking density of 5m <sup>2</sup> , the covered housing system would have maximum capacity of 2,016 head.
		The proposed modernisation and expansion seeks approval for:
		An average stocking density of 19m <sup>2</sup> across the existing uncovered feedlot and covered housing system.
		A minimum stocking density of 5m <sup>2</sup> within the covered housing system.
		<ul> <li>A maximum capacity of 4,500 head within the existing uncovered feedlot and covered housing system</li> </ul>
		Carcass Disposal Pit
		The existing carcass disposal pit is located to the west of the existing feedlot facility.
		Once the existing carcass disposal pit has reached capacity, a further carcass disposal pit will be constructed in accordance with the original EIS. The site has adequate capacity to support expansion of the carcass pit. A conceptual expansion of the existing pit is



Matter		Response
		shown in <b>Appendix A</b> . Expansion of the pit will avoid impacts on native vegetation where possible. <b>Vehicle Movements</b>
		The proposed development would result in a net increase in traffic volumes on the surrounding road network ( <b>Table 9</b> ).
		A comparative assessment demonstrates that the proposed expansion will result in a negligible overall change in heavy vehicle movements.
		The increase in daily traffic volume and peak hour volume generated by the proposed expansion would be easily absorbed into the surrounding road network with minimal impact on the capacity of the existing traffic streams using the road system.
		Stock handling facility
		The stock handling facility is the designated area within the feedlot where cattle are safely unloaded, sorted, treated, and managed as part of routine animal husbandry and induction processes. Frampton Flat has confirmed that the existing stock handling facility is capable of accommodating the proposed increase from 2,800 to 4,500 head.
(ii)	The existing vegetation,	Soil resources and water
	air, noise and water quality, scenic character and special features of the land on which the development is, or will be, carried out and the surrounding locality	The proposed development will increase the volume of liquid and solid waste generated. The Manure Management Plan (MMP) provided in <b>Appendix B</b> , demonstrates that the increase in liquid and solid waste can be accommodated within the receiving environment.
		Air quality
		The Level 1 Odour Impact Assessment provided in <b>Appendix D</b> , demonstrates that the proposed increase from 2,800 to 4,500 head of cattle is unlikely to result in a detrimental off-site impact.
		Noise
		A Noise Assessment Report (SP Solutions, 2005) was prepared for the feedlot in March 2005. The Noise Assessment Report included a conservative assessment of potential noise impact based on the simultaneous operation of all equipment at the same time. The Noise Assessment Report demonstrated that the feedlot



Matter	Response
Matter	would not impact on the amenity of sensitive receivers in and around Tullibigeal.  The Noise Assessment Report identified that the feedlot would result in a sound pressure level of 34.0 dB(A) at the B&M Ridley residence, being 1.0 dB(A) below the project criterion.  The B&M Ridley residence is now owned Frampton Flat Pty Ltd and is treated as an associated receiver.  There have been no fundamental changes the types of machinery used for the operation of the existing Frampton Feedlot since 2005. Further, there would be no change to the types of machinery used for the operation of the proposed expansion. Accordingly, it is considered that the findings of the 2005 Noise Assessment Report remain valid and that the proposed expansion would not result in any additional noise impacts.  EPL 12319 Condition L3 would continue to apply to the proposed development, requiring that noise from the feedlot must not exceed 35 dB(A) over any 15-minute period at nearby residences at any time.
	Pen Surface Monitoring  Pen surface monitoring is undertaken by daily visual inspection. Pen maintenance is undertaken as soon as practicable to minimise further wear.  No other potential impacts are anticipated in relation to vegetation, air, noise, water quality, scenic character or other special features.
(iii) The degree to which the potential environmental impacts can be predicted with adequate certainty	Water requirements  The existing feedlot facility generates a requirement for 47.6 ML per year.  The proposed expansion to 4,500 head with an average weight of 500 kilograms (kg), will generate a requirement for 90 ML of water per year based on the Feedlot Guidelines.  A study by Davis, Wiedemann and Watts (2008) identified that the water use for feedlots is closer to 16.75 ML/1,000 head. This results in an annual water use of approximately 76.5 ML.  Recent observations at Frampton feedlot indicate that cattle housed within the existing farm building, the subject of the Development Application, typically drink



Matter		Response
		25-30% less water than cattle within the existing feedlot. Conservatively, this would reduce average consumption to 14.25 ML per 1,000 head per year. This would result in an annual demand of 67.3 ML/year  The feedlot's water supply is primarily groundwater, with Water Access Licence 28445 (WAL 28445) allowing a total yearly groundwater extraction of 52 ML. A further 3.7 ML/year will be obtained from stormwater collected from the existing farm building.  This would result in a total shortfall of 11.6 ML / year. If required, this shortfall could be obtained from the local reticulated water supply from Lake Cargelligo. <b>Greenhouse gas emissions</b> The NSW EPA <i>NSW Guide for Large Emitters</i> states that a Greenhouse gas assessment is required if a feedlot (or an expansion/modification) emits ≥25,000 t CO₂-e/year.  The NSW EPA has recently clarified that cattle feedlots are likely to approach or exceed 25,000 t CO₂-e/year at an overall capacity of 20,000 head.  Based on the advice provided by the NSW EPA, a greenhouse gas assessment has not been completed.
(iv)	The capacity of the receiving environment to accommodate changes in environmental impacts	Volume of additional manure  The MMP identifies that the proposed development will generate 1,575 tonnes of manure annually, being an overall increase of 962 tonnes.  Manure disposal sites  The MMP identifies that 58% (919 t) of manure can be spread on-site, with 42% (656 t) to be exported from the site. Manure exported from the site would typically be spread on other dryland cropping areas owned or leased by Frampton Flat Pty Ltd.  Manure exported from the site would typically be spread on other dryland cropping areas properties owned or leased by Frampton Flat Pty Ltd, including:  > Pettits;  > Wongalea;  > Lialeeta;  > Glen Douglas;  > Yapoona;



Matter		Response
		<ul> <li>&gt; Ben Lomond; and</li> <li>&gt; South Pines.</li> <li>Properties in the immediate vicinity of the Frampton Feedlot are shown in Appendix A.</li> <li>The NSW EPA manure exemption 2014 applies to any person who applies, or intends to apply, manure to land as a soil amendment. the EPA exempts each consumer from the following provisions of the POEO Act and the Waste Regulation in relation to the consumer's actual or intended application of manure to land at the premises:</li> <li>&gt; Section 48 of the POEO Act in respect of the scheduled activities described in Clauses 39 and 42 of Schedule 1 of the POEO Act;</li> <li>&gt; Part 4 of the Waste Regulation;</li> <li>&gt; Section 88 of the POEO Act; and</li> <li>&gt; Clause 109 and 110 of the Waste Regulation.</li> <li>The exemption is subject to the following:</li> </ul>
		<ul> <li>The manure can only be applied to land as a soil amendment.</li> <li>The consumer must ensure that any application of manure to land must occur within a reasonable period of time after its receipt.</li> </ul>
		Volume of overflow pond
		The Overflow Pond has a total volume of 2 ML.  Water balance modelling presented in the MMP demonstrates that Holding Pond 1 will not spill. Water balance modelling shows spills from Effluent Holding Pond 2 will be captured by the Overflow Pond, which is likely to spill 1:33.7 years. The total volume of spill is modelled as 0.01 ML.
		Management of salinity
		Salinity will continue to be managed via regular monitoring and reporting under EPL 12319.
(c)	Proposals to mitigate the environmental impacts and manage residual risk	Residual risks  The potential impacts of the proposed development are typically associated with the volume of liquid and solid waste generated and odour.  The MMP and Level 1 Odour Impact Assessment demonstrate that the proposed increase from 2,800 to



Matter	Response
	4,500 head is unlikely to result in a detrimental off-site impact.  Notwithstanding, EPL 12319 will continue to include conditions which address these issues and require ongoing monitoring and reporting.
(d)	Relevant codes of practice and guidelines
	The primary codes of practice and guidelines relevant to the design and operation of cattle feedlots in NSW include:  > National Guidelines for Beef Cattle Feedlots in Australia. 3rd ed., Meat & Livestock Australia Limited,
	2012;
	> Feedlot covered housing systems Best practice design and management manual. Meat & Livestock Australia, 2023; and
	> Environmental Guidelines Use of effluent by irrigation. Department of Environment and Conservation, 2004.
	The proposed development has been designed in accordance with these documents.
	Research and industry-backed evidence indicates that covered housing systems can outperform uncovered feedlots in several key areas:
	> Covered housing systems improve animal performance, with better average daily weight gains and feed conversion efficiency compared to uncovered feedlots.
	> Cattle in covered pens are cleaner, which reduces carcass contamination and trimming at processing, improving meat yield.
	> Covered systems eliminate rainfall runoff from pens, reducing effluent management costs and environmental risk.
	> Covered housing provides consistent pen conditions year-round, avoiding disruptions caused by mud, rain, or heatwaves.
	> Manure quality is improved under cover, as it is drier and less contaminated by soil and water.
	> Covered feedlots reduce the risk of animal health issues, such as lameness and respiratory disease, by providing a more controlled environment.



Matter	Response
Matter	<ul> <li>Response</li> <li>These systems align with rising animal welfare expectations, supporting compliance with industry accreditation and customer assurance programs.</li> <li>Although peer-reviewed Australian research is still emerging, international studies and industry feedback strongly support the benefits of covered feedlots.</li> <li>The MLA Feedlot Covered Housing Systems manual draws on Australian and international case studies, field trials, and expert consultation with lot feeders, engineers, and researchers to support its recommendations.</li> <li>The fundamental design principles of the Covered Housing Systems manual are:</li> <li>Ensure optimal animal welfare;</li> <li>Optimise cattle performance;</li> </ul>
	<ul><li>Optimise cattle performance;</li><li>Provide protection from the elements;</li></ul>
	> Be structurally sound with a long expected life;
	> Promote good natural ventilation;
	<ul> <li>Provide for ease of pen management including the addition of bedding and the removal of manure;</li> </ul>
	> Minimise ongoing maintenance; and
	> Provide a safe working environment.
	The covered housing system is fundamentally consistent with the Covered Housing Systems manual, including:
	> Building type;
	> Flooring;
	> Fencing and gates;
	> Feeding;
	> Water troughs; and
	> Drainage.
	Further, the covered housing system will be managed in accordance with the recommendations of the Covered Housing Systems manual, including:
	> Bedding; and
	> Manure management.



### 4.2.2 SECTION 1.7

Section 1.7 of the EP&A Act requires consideration of Part 7 of the *Biodiversity Conservation Act 2016* (BC Act). Part 7 of the BC Act relates to an obligation to determine whether a proposal is likely to significantly affect threatened species. A development is considered to result in a significant impact in the following assessed circumstances.

**Table 6 – Test of Significance** 

Test	Assessment
It is likely to significantly affect threatened species or ecological communities or their habitats, according to the test in Section 7.3, or	The proposed modernisation and expansion do not involve the removal of any vegetation. As such, the proposed development is unlikely to significantly affect threatened species, ecological communities, or their habitats as no vegetation clearing is involved.
The development exceeds the biodiversity offsets scheme threshold if the biodiversity offsets scheme applies to the impacts of the development on biodiversity values, or	The proposed alterations and additions do not involve the removal of any vegetation
It is carried out in a declared area of outstanding biodiversity value.	The site is not located in an area identified as outstanding biodiversity value as listed under Part 3 of the BC Regulation.
	Accordingly, it is considered that a BDAR is not required.

Source: Environmental Planning and Assessment Act 1979

Based on the foregoing assessment, it is considered that the proposed development is unlikely to significantly affect a threatened species.

### 4.3 Lachlan Local Environmental Plan 2013

At a local level, the applicable plan is the *Lachlan Local Environmental Plan 2013* (LEP). The aims of the LEP are:

- (aa) to protect and promote the use and development of land for arts and cultural activity, including music and other performance arts,
- (a) to protect, conserve and enhance agricultural land through the proper management, conservation and development of natural and man-made resources,
- (b) to encourage the provision of a range of housing, employment and recreation facilities to meet the needs of existing and future residents of Lachlan,
- (c) to promote the efficient and equitable provision of public services, infrastructure and amenities,
- (d) to protect, conserve and enhance the environmental and cultural heritage of Lachlan,
- (e) to encourage the sustainable growth of Lachlan,



(f) to encourage development that is matched by adequate land supply for long-term needs and that is linked with key services and infrastructure.

The proposed development is not antipathetic to the aims of the plan and is specifically consistent with the aim (a).

Through a review of available LEP mapping, the following is known about site specific constraints – refer **Table 7**.

Relevance/Section of Constraints Applies the report addressed Land Application Map Yes N/A N/A Land Zoning Map **RU1 Primary** Yes Section 4.3.1 Production 400 ha Lot Size Map N/A N/A Land Reservation Acquisition N/A N/A N/A Map Heritage Map N/A N/A N/A Flood Planning Map N/A N/A N/A **Groundwater Vulnerability** N/A N/A N/A Map Terrestrial Biodiversity Map N/A N/A N/A Wetlands Map N/A N/A N/A Additional Permitted Uses N/A N/A N/A Map

Table 7 - LEP mapping

### 4.3.1 LAND USE ZONING

The site is zoned RU1 Primary Production under the Lachlan LEP 2013.

The existing feedlot is permitted with consent in the RU1 Primary Production zone on the basis that intensive livestock agriculture (group term which includes dairies (restricted), feedlots, pig farms and poultry farms) is permitted with consent in the RU1 Primary Production zone. The proposed development does not result in any change of use of the site.

Further, it is considered that the proposed development is consistent with the relevant objectives of the RU1 Primary Production zone as it will achieve the following:

- > Continue to encourage sustainable primary production while not having a detrimental impact on the existing natural resource base;
- > Continue to encourage diversity in primary industry enterprises and systems; and
- > Minimise land use conflict by being managed in a manner which will prevent detrimental off-site impacts.

In addition, it is considered that the proposed development will have a neutral effect on the balance of the RU1 Primary Production zone objectives as it continues to minimise the fragmentation and



alienation of resource lands, community lifestyles, rural landscape and tourist and visitor accommodation.

### 4.3.2 INTENSIVE LIVESTOCK AGRICULTURE

Clause 5.18 of the LLEP 2013 seeks to ensure that development for the purpose of intensive livestock agriculture that is permitted with consent. Specifically, Clause 5.18 identifies that the following matters must be taken into consideration before determining whether to grant development consent for purpose of intensive livestock agriculture:

**Table 8 – Intensive Livestock Agriculture** 

Prov	isions:	Comments:
purp	his clause applies if development for the ose of intensive livestock agriculture is litted with consent under this Plan.	Intensive livestock agriculture is permitted with consent in the RU1 Primary Production zone applying to the site under the LLEP 2013.
deve deve agric	n determining whether or not to grant lopment consent under this Plan to lopment for the purpose of intensive livestock ulture, the consent authority must take the wing into consideration—	
(a)	the adequacy of the information provided in the statement of environmental effects or (if the development is designated development) the environmental impact statement accompanying the development application,	This SEE provides a detailed description of the proposed modernisation and expansion, their compatibility with the applicable environmental planning framework, and their potential environmental impacts.  The information provided is considered adequate to allow the Council to undertake an informed assessment of the proposed development.
(b)	the potential for odours to adversely impact on the amenity of residences or other land uses within the vicinity of the site,	The potential for odours was addressed as part of the original Development Application for the existing feedlot.  As demonstrated in the attached Level 1 Odour Assessment, the proposed modernisation and expansion are unlikely to have any additional impact on the



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		amenity of any residence or
		other land use within the site's vicinity.
(c)	the potential for the pollution of surface water and groundwater,	The potential for surface water and groundwater pollution is addressed in the MMP provided in <b>Appendix B</b> .  The MMP identifies that the proposed modernisation and expansion are unlikely to negatively impact surface water and groundwater, provided the recommended mitigation measures are implemented.  unlikely and that no further mitigation measures are required.
(d)	the potential for the degradation of soils,	The potential for the degradation of soils is addressed in the MMP.  The MMP states that the proposed modernisation and expansion are unlikely to have a detrimental impact on soils.
(e)	the measures proposed to mitigate any potential adverse impacts,	The potential for the degradation of soils is addressed in the MMP.
(f)	the suitability of the site in the circumstances,	Th suitability of the site is discussed in <b>Section 5</b> .  In summary, it is considered that the proposed modernisation and expansion can be accommodated within the site with a low likelihood of a detrimental impact on the receiving environment.
(g)	whether the applicant has indicated an intention to comply with relevant industry codes of practice for the health and welfare of animals,	All relevant industry codes of practice for the health and welfare of animals are to be maintained in accordance with current arrangements, including the Australian Animal Welfare Standards and

				Statement of Environmental Enects
				Guidelines for Cattle (Animal Health Australia, 2014).
(h)	reasor enviro aspec establ types publis conse Prima	ns for donmenta ts of and ishment of inter thed, ar nt auth ry Industry) and	eparting from, the all planning and assessment y guidelines for the t and operation of relevant asive livestock agriculture and made available to the ority, by the Department of approved by the Planning	The proposed modernisation and expansion does not depart from the environmental planning and assessment aspects of any guidelines for the establishment and operation of the relevant types of intensive livestock agriculture.
(4) Despite any other provision of this Plan, development for the purpose of intensive livestock agriculture may be carried out without development consent if—				N/A
(a)		evelopn ause (5)	nent is of a type specified in , and	
(b)	the consent authority is satisfied that the development will not be located—			
	(i)	in an or	environmentally sensitive area,	
	(ii)	within 100 metres of a natural watercourse, or		
	(iii)	in a d	drinking water catchment, or	
	(iv)	<ul> <li>(iv) within 500 metres of any dwelling that is not associated with the development, or a residential zone, or</li> <li>(v) for a poultry farm used for breeding poultry—within 5km of another poultry farm, or</li> <li>(vi) for a poultry farm not used for breeding poultry—</li> </ul>		
	(v)			
	(vi)			
		(A)	within 5km of a poultry farm used for breeding poultry, or	
		(B)	within 1km of a poultry farm not used for breeding poultry, or	



	(vii)	for a pig farm—within 3km of another pig farm.	
		wing types of development are the purposes of subclause (4)—	N/A
(a)		le feedlot having a capacity to nmodate fewer than 50 head of cattle,	
(b)	_	t feedlot having a capacity to nmodate fewer than 200 goats,	
(c)		ep feedlot having a capacity to nmodate fewer than 200 sheep,	
(d)	accon or few	farm having a capacity to nmodate fewer than 20 breeding sows, ver than 200 pigs (of which fewer than ay be breeding sows),	
(e)		y (restricted) having a capacity to nmodate fewer than 50 dairy cows,	
(f)	accon	Itry farm having a capacity to nmodate fewer than 1,000 birds for or egg production (or both).	
not a may unde	pply to be carrie	voidance of doubt, subclause (4) does development that is prohibited or that ed out without development consent any other environmental planning	N/A

### 4.3.3 EARTHWORKS

Clause 6.1 of the LLEP 2013 seeks to ensure that earthworks for which development consent is required will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land.

The proposed modernisation and expansion does not involve earthworks.

The proposed alterations and additions will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land.

### 4.3.4 TERRESTRIAL BIODIVERSITY

Clause 6.4 seeks to protect biological diversity of native flora and fauna, the ecological processes necessary for their continual existence and encouraging the recovery of threatened species, communities or populations and their habitats.

The proposed alterations and additions do not involve the removal of any native vegetation.

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The proposed alterations and additions will not have a detrimental impact on any ecological processes necessary for their continual existence and encouraging the recovery of threatened species, communities or populations and their habitats.

### 4.3.5 ESSENTIAL SERVICES

Clause 6.7 of the LLEP 2013 identifies that consent must not grant consent unless essential for the development are available or that adequate arrangements have been made to make them available.

Essential services include the supply of water, supply of electricity, disposal and management of sewage, stormwater drainage or on-site conservation and suitable vehicle access.

All relevant essential services are available to the site.

### 4.3.6 STATE ENVIRONMENTAL PLANNING POLICY

### 4.3.6.1 State Environmental Planning Policy (Primary Production) 2021

The *State Environmental Planning Policy (Primary Production) 2021* (Primary Production SEPP) seeks to manage primary production and rural development including supporting sustainable agriculture.

Schedule 4 of the Primary Production SEPP is consistent with Clause 5.18 of the Lachlan LEP. Clause 5.18 of the Lachlan LEP is addressed in **Section 4.3.2**.

### 4.3.6.2 State Environmental Planning Policy (Resilience and Hazards) 2021

The State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP) aims provide for a Statewide planning approach to land use planning in the coastal zones, hazardous and offensive industries and the remediation of land.

Chapter 4 of the Resilience and Hazards SEPP relates to remediation of land. Clause 4.6(1) of the Resilience and Hazards SEPP prevents Lachlan Shire Council from granting consent to the carrying out of development unless it has considered whether the land s contaminated. If the land is contaminated, it must not consent to the carrying out of development unless it is suitable for the proposed use in its contaminated state or will be suitably remediated before the land is used for that purpose.

Development consent is sought to expand an existing land use only. Accordingly, as the use is not proposed to change, it is considered the site is suitable for the proposed development.

# 4.4 Lachlan Development Control Plan 2018

### 4.4.1 WATER EFFICIENCY AND STORMWATER MANAGEMENT

Section 3.1.4 seeks to ensure that stormwater is managed so that flows are maintained at predevelopment levels and to supplement reticulated supplies.

Stormwater and water efficiency are addressed in detail in the MMP. The MMP demonstrates that

- > The incorporation of the Overflow Pond for Holding Pond 2 guaranties an improvement of the overall wastewater management. Water balance modelling demonstrates that a spilling frequency of 1 in 33.75 years, in accordance with the Feedlot Guidelines.
- > The addition of the roof stormwater collection dam further enhances the safety and reliability of freshwater supply for the cattle in emergency situations.



## 4.4.2 BUSHFIRE PRONE LAND

Section 3.9 seeks to sure development is appropriately located, designed, and serviced to manage bush fire risk, support emergency access, and improve safety outcomes for both new and existing habitable areas.

Section 3.9 requires compliance with the document entitled *Planning for Bush Fire Protection (PBP)* (as prescribed by the *Environmental Planning and Assessment Regulation 2021*).

*PBP* does not specifically apply to cattle feedlots. Notwithstanding, it is considered that the existing development is consistent with the aims and objectives of *PBP*.

- > The feedlot is designed to accommodate staff in operational areas that are accessible and serviceable in emergencies.
- > Emergency access and egress are facilitated by an established road network with appropriate turning areas and access to public roads.
- > Operational areas of the feedlot (e.g. cattle pens, sheds, and effluent systems) are located in cleared zones with minimal surrounding vegetation, effectively serving as Asset Protection Zones (APZs). These cleared buffers limit potential fire spread to infrastructure and personnel.
- > The site layout avoids encroachment into vegetated or hazard-prone areas. Infrastructure is sited to provide physical separation from vegetated paddocks or any unmanaged fuels.
- > The site features wide internal roads and clear vehicle movement areas, allowing Category 1 firefighting appliances to access key infrastructure.
- > The facility is equipped with effluent holding ponds and water infrastructure, providing a potential static water source for firefighting operations should it be required.
- > Water infrastructure is available year-round due to operational needs, supporting fire suppression if necessary.
- > The site is actively managed, with routine maintenance of open areas, roads, and effluent systems. This reduces the accumulation of combustible material and supports safe emergency operations.
- > Manure management and export processes prevent excessive organic material buildup, reducing fuel loads in and around operational zones.
- > Power and other services are located in cleared, accessible areas, minimising fire ignition risk and allowing for service continuity during fire events.

## 5. IMPACT ASSESSMENT

## 5.1 Access, Transport and Traffic

## 5.1.1 EXISTING ENVIRONMENT

The feedlot is accessed from Wattle Street / Tullibigeal Road (Road Id: 103212), a local road that extends north from Tullibigeal towards the Lachlan Valley Way.

Wattle Street / Tullibigeal Road is a single lane, sealed road. There are no dedicated pedestrian or bicycle facilities within the road reserve, with pedestrian and bicycle use being unrestricted.

Wattle Street / Tullibigeal Road is used for a single public transport service, being Route S610 between Fairview Park on Yarran Road and the Tullibigeal Central School on Currajong Street, Tullibigeal.

Route S610 operates Monday to Friday during the following times:

- > 7:30 8:27 am
- > 3:01 3:40 pm

The existing intersection arrangement at the site access is generally consistent with a rural property access specifically designed for articulated vehicles.

## 5.1.2 CRASH DATA

A review of the TfNSW Centre for Road Safety Crash and Casualty Statistics database for all injury crashes along Wattle Street / Tullibigeal Road in the vicinity of the site has been carried out.

The crash database provides the location and severity of all injury and fatal crashes for the five-year period from 2018 to 2023.

The crash database did not include any records of crashes in the vicinity of the site.

## 5.1.3 SIGHT AND STOPPING DISTANCE

Austroads Guide to Road Design – Part 3 (AGtRD3) Geometric Design and Part 4A (AGtRD4A): Unsignalised and Signalised Intersections outline the requirements for sight distance for unsignalised intersections.

The guide recommends that the Safe Intersection Sight Distance (SISD) should be the minimum sight distance provided on the Major Road at any intersection. The Austroads guide provides a formula for calculating SISD values for vehicles at varying design speeds and road conditions.

The following formula is used to determine the SISD for heavy vehicles:

$$SSD/ASD = \frac{R_t \times V}{3.6} + \frac{V^2}{254x(d+0.01 \, x \, a)}$$

$$SISD = \frac{D^t \times V}{3.6} + \frac{v^2}{254 + (d + 0.01 \times a)}$$

- SSD = Safe Stopping Distance
- > SISD = Safe Intersection Site Distance

While SISD and SSD has not been calculated in this instance, a site inspection confirms that there is unimpeded view along Wattle Street / Tullibigeal Road to the north and south.



The unimpeded view along Wattle Street / Tullibigeal Road to the north and south indicates that SISD and SSD is likely to be achieved at the existing property access.

## 5.1.4 POTENTIAL IMPACTS

## 5.1.4.1 Impact on traffic safety

Wattle Street / Tullibigeal Road is currently operating consistent with other rural roads in the area.

The existing access to Frampton Feedlot achieves the required sight distances and is sufficient to accommodate heavy vehicles.

## 5.1.4.2 Impact of expected traffic on Wattle Street / Tullibigeal Road

The proposed modernisation and expansion would result in a net increase in traffic volumes on the surrounding road network (**Table 9**).

The comparative assessment demonstrates that the proposed expansion will result in a negligible overall change in heavy vehicle movements.

The increase in daily traffic volume and peak hour volume generated by the proposed expansion would be easily absorbed into the surrounding road network with minimal impact on the capacity of the existing traffic streams using the road system.

ParameterCurrent vehicle movementsProposed vehicle movementsTrucks in /week35Trucks out /week57Other1 - 2 /week3 - 4 / week

**Table 9 – Vehicle movements** 

Vehicle movements presented as a single movement per entry and exit for the purpose of identifying the number of heavy vehicles attending the feedlot. Actual vehicle movements for the purpose of traffic impact assessment equate to two x the number of vehicle movements presented.

## 5.1.4.3 Impact of expected traffic on the site intersection

Detailed intersection analysis has not been undertaken on Wattle Street / Tullibigeal Road. Notwithstanding, it is unlikely that the negligible increase in heavy vehicles movements will have any perceivable impact on the safe operation of the existing site intersection with Wattle Street / Tullibigeal Road.

## 5.1.5 MITIGATION MEASURES

The foregoing assessment demonstrates that the proposed modernisation will result in a negligible increase in traffic on Wattle Street / Tullibigeal Road and is unlikely to impact on traffic safety, including traffic safety at the feedlot access.

No additional mitigation measures are recommended.



## 5.2 Surface water

## 5.2.1 EXISTING ENVIRONMENT

The feedlot is located approximately 33 km south-east of the Lachlan River, Strahler order 8 watercourse. Two Strahler order 4 streams are located within 1 km of the existing feedlot and are non-perennial (intermittent and ephemeral) watercourses that only flow during periods of high rainfall runoff.

The nearest major watercourse is the Lachlan River, located approximately 33 km northwest of the feedlot. There are a few hydrolines near the feedlot, including two Strahler order 4 streams close to the site. These adjacent hydrolines are non-perennial and flow only during periods of high rainfall runoff.

## 5.2.2 POTENTIAL IMPACTS

The proposed feedlot expansion does not increase the risk of potential impact on surface water.

## 5.2.3 MITIGATION MEASURES

Measures recommended to mitigate potential impacts to surface water include:

- > Adopting the recommended separation distances for the application of solids from the feedlot operation. This would provide a buffer to filter any site runoff;
- > Managing the solids application program to ensure excess nutrients are not available to move to the surface water systems;
- > Ensuring adequate ground cover is maintained on cropping areas to limit soil erosion (except as required during periods of ground preparation and sowing); and
- > Monitoring the manure management system in accordance with feedlot EPL 12319 and this MMP.

## 5.3 Groundwater

## 5.3.1 EXISTING ENVIRONMENT

All bores within the facility have a SWL of at least nine (9) meters deep, with the first water-bearing zone encountered at a minimum depth of 28 meters.

All bores outside the facility area a minimum of 200 meters away, exceeding the recommended minimum distance of 100 meters for bores, wells, or springs that supply potable water.

## 5.3.2 POTENTIAL IMPACTS

The proposed feedlot expansion does not increase the risk of potential impact on groundwater.

## 5.3.3 MITIGATION MEASURES

Potential groundwater impacts are and will keep being mitigated by monitoring the manure management system in accordance with EPL 12319 and this MMP.



## 5.4 Soils

## 5.4.1 EXISTING ENVIRONMENT

The land and soil capability (LSC) of the soil landscapes across the site is identified as class 3, being moderate limitation.

The feedlot performs annual monitoring across the solid waste utilisation area under EPL 12319. Monitoring results from June 2024 identify that:

- > Soils present a moderate dispersibility;
- > High available phosphorus values in the topsoil and low available phosphorous in the subsoil;
- > Cation Exchange Capacity (CEC) is low for topsoil and moderate for the subsoil;
- > Soils present moderately saline and non-sodic conditions;
- > Total nitrogen level is low in the topsoil and in the subsoil;
- > Organic carbon level is low in both the topsoil and subsoil, reflecting poor to moderate structural condition and low to moderate structural stability;
- > Phosphorus sorption capacity is high for the topsoil and subsoil, indicating a strong soil ability to retain phosphorus, preventing it from leaching into groundwater or being easily lost from the soil profile; and
- > pH presents moderately acid conditions for topsoil and neutral conditions for subsoil.

Soil monitoring identifies that the existing dryland areas are suitable for controlled solids spreading under proper management practices.

## 5.4.2 POTENTIAL IMPACTS

Potential impacts on soil resources include nutrient buildup in effluent disposal reuse areas.

## 5.4.3 MITIGATION MEASURES

Potential soil resource impacts will continue to be mitigated by managing solids application in line with the MMP and adjusting the plan based on trends observed through monitoring required by EPL 12319.

The feedlot proponent owns over 10,000 ha of land that he can used for manure spreading, allowing the sites' soils to be rested if needed. Properties in the immediate vicinity of the Frampton Feedlot are shown in **Appendix A**.

# 5.5 Air Quality

## 5.5.1 INTRODUCTION

The use of appropriate separation or buffer distances is a well-established and widely recognised means of mitigating the impacts on community amenity that arise from odour, dust, noise and other fugitive emissions associated with the operation of a beef feedlot.

A fundamental principle applied in determining the separation distances applicable to fugitive emissions is that they tend to radiate out from a source and be diluted. This applies particularly to the major airborne emissions from feedlots.



The S-factor equation is widely used to determine the minimum separation distances required between various types of receptors and a beef cattle feedlot development.

The NSW Environment Protection Authority (NSW EPA) refer to the S-factor equation as a Level 1 odour impact assessment.

Level 1 is based on an equation that that provides an estimate of the allowable cattle numbers (N) at any one time for a site at distance (D) metres from an impact distance (Equation 1). The equation can also be expressed as the distance for a specified number of cattle (Equation 2).

## Equation 1, Allowable cattle numbers, given the distance

 $N = (D \div S)^2$ 

## Equation 2, Separation distance, given the number of cattle

 $D = \sqrt{N} \times S$ 

N Number of standard cattle units (SCU). A standard cattle unit is defined as a bovine weighing 600 kilograms live weight at exit from feedlot.

D Separation distance in metres from pens and stockpiles

S Composite site factor =  $S1 \times S2 \times S3 \times S4 \times S5$ . Site factors S1, S2, S3, S4 and S5 are determined according to site-specific information relating to stocking density, feedlot class, receptor, terrain, vegetation and wind factor.

It should be noted that the Level 1 system is designed for uncovered feedlots only, including the effect of rainfall on pad moisture. Pad moisture is the most significant contributor to odour emissions rates from uncovered feedlots.

Odour emission rates from covered feedlots are likely to be substantially reduced by removing pad moisture generated by rainfall and through more effective management, including the use of bedding and regular cleaning.

## 5.5.2 EXISTING ENVIRONMENT

The Level 1 odour impact assessment submitted with the original EIS indicated that the existing feedlot could operate with a capacity in excess of 3,000 head of cattle / SCU.

No known complaints have been received in relation to odour since the current feedlot was constructed and commenced operation in 2005.

## 5.5.3 POTENTIAL IMPACTS

The Level 1 Odour Impact Assessment provided in **Appendix D**, has been prepared to demonstrate the potential impact of the proposed modernisation (i.e. the existing feedlot and proposed covered housing system) with a capacity of 4,500 cattle (3,915 SCU) for a feedlot Class 1 in rainfall conditions of <750mm/year and 0mm/year.

The Level 1 Odour Impact Assessment shows that for the combined case (open pens with rainfall conditions of <750mm/year and covered housing with 0 mm rainfall), the minimum distance required by calculation is 2,051 m which is less than the actual distance to the closest sensitive receptor (2,215 m). The maximum allowable number of SCUs is 4,564 which is equivalent to 5,246 head of cattle. This is well above the proposed maximum capacity of 4,500 cattle.



Frampton Flat Pty Ltd Statement of Environmental Effects

On this basis, it is considered that Condition L5.1 of EPL 12319 and Section 129 of the *Protection of the Environment Operations Act 1997* will continue to provide adequate restriction on potential off-site impacts associated with odour.

Further, it is considered unnecessary to undertake a Level 2 or Level 3 assessment in this instance.

## 5.5.4 MITIGATION MEASURES

Given the results of the Level 1 Odour Impact Assessment, no further mitigation measures are considered necessary.

## 6. **CONCLUSION**

Frampton Flat Pty Ltd (ABN 27 168 379 922) is an Australian, family owned and operated company.

Frampton Flat has operated the existing Frampton Flat Feedlot at 513 Tullibigeal Road, Tullibigeal, since 2005 in accordance with Development Consent 92/2004 and Environment Protection Licence 12319 (EPL 12319).

Frampton Flat Pty Ltd seeks to modernise and expand the existing Frampton Flat Feedlot. The proposed modernisation and expansion includes:

- > Use of an existing building for the purpose of a covered housing system.
- > An average stocking density of 19m<sup>2</sup>.
- > A minimum stocking density of 5m<sup>2</sup>.
- > A maximum capacity of 4,500 head of cattle.

The minimum stocking density of 5m<sup>2</sup> would only be used within the covered housing system to respond to excessively wet periods, which have a detrimental effect on animal welfare.

Using the covered housing system and reducing the average stocking density would allow for the feedlot capacity to increase from 2,800 to 4,500 head of cattle.

This Statement of Environmental Effects and accompanying technical reports demonstrate that the proposed modernisation and expansion of the Frampton Flat Feedlot do not significantly increase the environmental impacts of the existing or approved development.



## **REFERENCES**

Animal Health Australia. (2016, January). *Australian Animal Welfare Standards and Guidelines for Cattle* (Edition 1, Version 1). Available at: <a href="https://animalwelfarestandards.net.au/wp-content/uploads/2023/08/Cattle-Standards-and-Guidelines-Endorsed-Jan-2016-061017">https://animalwelfarestandards.net.au/wp-content/uploads/2023/08/Cattle-Standards-and-Guidelines-Endorsed-Jan-2016-061017</a> .pdf

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# APPENDIX A PROJECT DRAWINGS



Frampton Feedlot

Site Plan



Site

Road

Feedlot with Stormwater and Effluent Management

Plan No.	Revision	Date
P001	RevB	19/06/2025

0 200 400m





Frampton Feedlot

Feedlot approved under DA 2004/0092

## Legend

Site

Feedlot Pens

Feed Lanes/Roads

Manure Pad

Sedimentation Pond

Effluent Holding Pond (Option 1)

Effluent Holding Pond Option 2

Feedmill Area Holding Pond

(CDA 2)

### Controlled Drainage Areas (CDA)

## CDA 1:

- Feedlot pens
- Cattle yards
- Manure stockpile
- Sedimentation pond
- Roads and other hard

## and soft catchment

## Option 1:

- Calculated using the FSIM model (Lott,
- Design volume 23 ML

### Option 2:

- Calculated using guideline values (SCARM, 1997 and NSW Agriculture,

P002

- Feed processing area
- Feed storage area
- Roads and other hard and soft catchment

1997)

Design volume of 10.5 ML

Plan No. Revision

Date Rev A 5/06/2025

100m





Frampton Feedlot

Feedlot as constructed under DA 2004/0092 (Footprint)

Legend

Approved Plans DA2004/0092 Feedlot as constructed under DA2004/0092

 Plan No.
 Revision
 Date

 P003
 Rev A
 3/06/2025





Frampton Feedlot

Feedlot as constructed under DA2004/0092 (Detailed Plan)



Open Feedlot Pens

Cattle Lanes

Effluent Ponds and Drains

Feed Lanes

Feedmill Area Holding Pond

Handling Facility

Carcass Pit

Plan No.	Revision	Date
P004	Rev B	19/06/2025



Frampton Feedlot

Farm building approved under DA 2024/6

Legend
Site
Farm building approved under DA2024/6
Water supply system (permitted without consent)

Feedlot as constructed

Plan No.	Revision	Date
P005	Rev A	3/06/2025

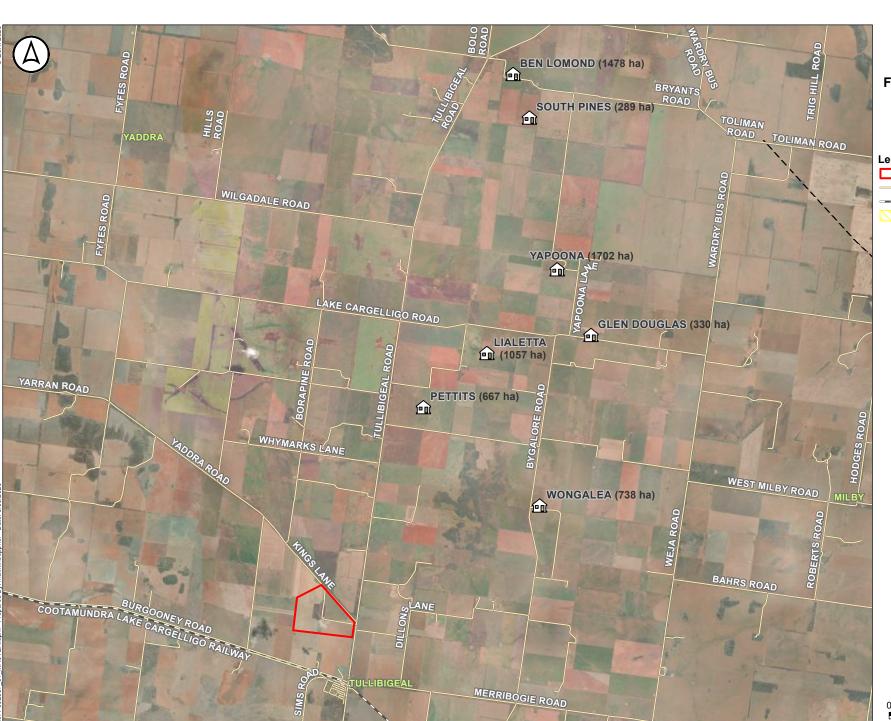


Frampton Feedlot

**Proposed Change of Use** 



Plan No.	Revision	Date	
P006	Rev A	3/06/2025	





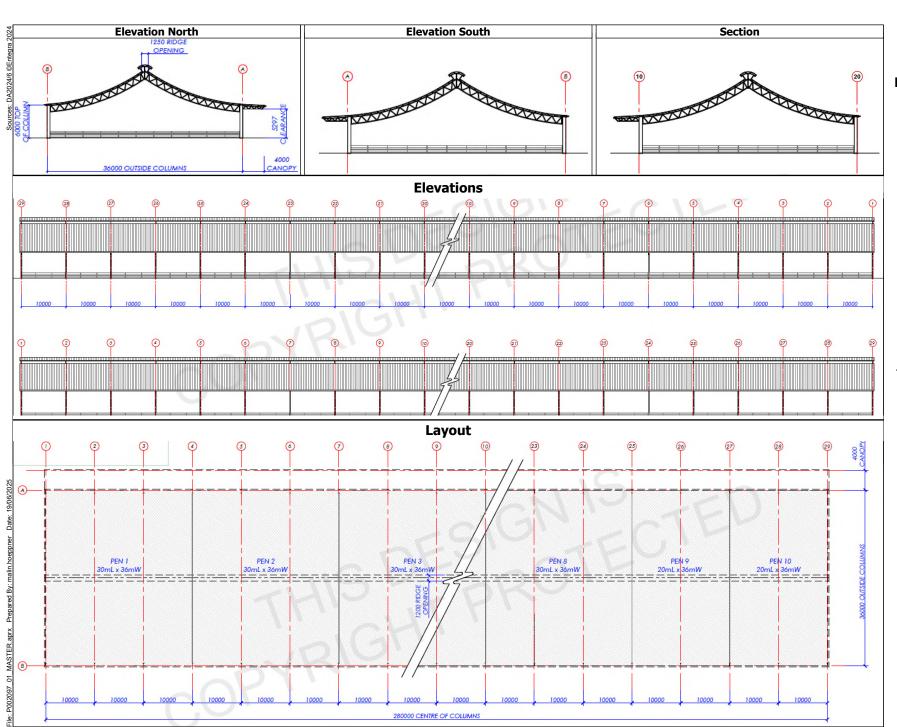
Frampton Feedlot

Land Ownership



Plan No.	Revision	Date
P007	Rev A	5/06/2025

2.5 5km





Frampton Feedlot

Elevations, Section and Pen Layout Plan







Frampton Feedlot

Manure Management Plan Groundwater Bores

Site
Watercourse
Manure Spreading Area
Groundwater Bores
Feedlot as constructed under DA2004/0092
Farm building approved under DA2024/6
Water supply system (permitted without consent)

Plan No.	Revision	Date
P009	Rev B	19/06/2025

0 200 400m





Frampton Feedlot

Manure Management Plan Manure Spreading Area

Site

Watercourse

Feedlot as constructed under DA2004/0092

Farm building approved under DA2024/6

Water supply system (permitted without consent)

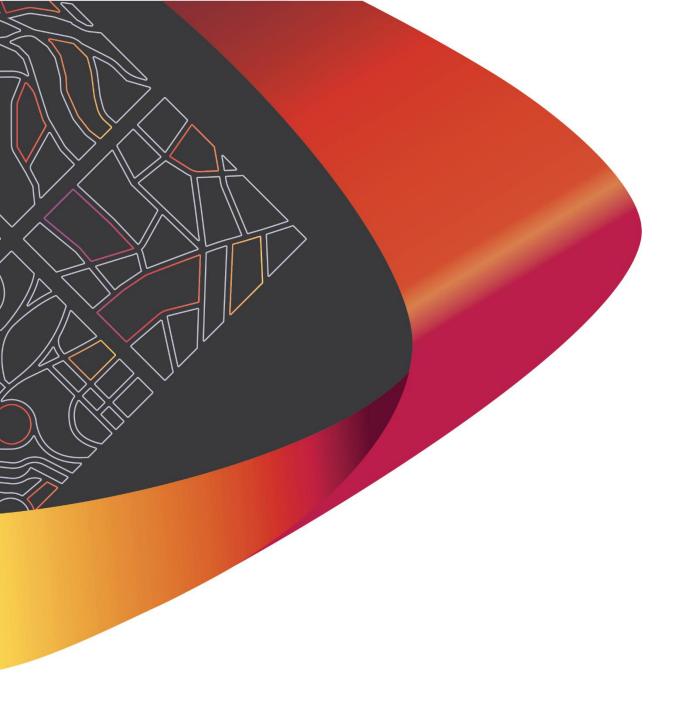
Buffers and Exclusion Zone

Manure Spreading Area (202.52ha)

Plan No. Revision		Date
P010	RevB	19/06/2025

400m

# APPENDIX B MANURE MANAGEMENT PLAN



# Frampton Flat Feedlot Manure Management Plan

Frampton Flat Pty Ltd

Rev C P002097 1 July 2025





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Document Reference: P002097-R02 REV C

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Revision	<b>Revision Date</b>	Proposal Details	
С	1/07/2025	Final	
Prepared by		Reviewed by	Authorised by
Stephan Defoy		Frampton Flat Pty Ltd	Panel Drm Daniel Drum



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# 1. INTRODUCTION

# 1.1 Background

Frampton Flat Pty Ltd (Frampton Flat) (ABN 27 168 379 922) is an Australian, family owned and operated company.

Frampton Flat has operated the existing Frampton Flat Feedlot (the 'feedlot') at 513 Tullibigeal Road, Tullibigeal, since 2005 in accordance with Development Consent 92/2004 and Environment Protection Licence 12319 (EPL 12319).

Frampton Flat seeks to modernise and expand the existing feedlot. The proposed modernisation and expansion includes:

- > Use of an existing building for the purpose of a covered housing system.
- > An average stocking density of 19m<sup>2</sup>.
- > A minimum stocking density of 5m<sup>2</sup>.
- > A maximum capacity of 4,500 head of cattle.

The minimum stocking density of 5m<sup>2</sup> would only be used within the covered housing system as a response to excessively wet periods which have a detrimental effect on animal welfare.

The use of the covered housing system and reduction of the average stocking density would allow for the capacity of the feedlot to increase from 2,800 to 4,500 head of cattle.

# 1.2 Scope

This Manure Management Plan (MMP) has been prepared in response to the proposed use of the covered housing system and ancillary infrastructure. The MMP accompanies a Development Application for alterations & additions to the existing feedlot.

Frampton Flat is committed to providing a co-ordinated approach to avoid, reduce, and control the potential environmental impacts associated with its activities, products, and services.

# 1.3 Relevant guidelines

The MMP has been prepared using the relevant criteria outlined in the following guidelines:

- > The National Guidelines for Beef Cattle Feedlots (the Feedlot Guideline) (Meat & Livestock Australia Limited, 2012).
- > The NSW feedlot manual (New South Wales. Department of Agriculture, 1995).
- > Beef cattle feedlots: waste management and utilisation (Meat & Livestock Australia Limited, 2015).
- > Environmental management guidelines for the dairy industry (NSW Department of Primary Industries, 2008).

## 1.4 Definition of waste

Waste refers to both the liquid and solid waste stream generated from the feedlot. The Manure Management System (MMS) is the entire system that deals with the collection, treatment and reuse of the liquids, organic matter and nutrients contained in the manure from the facility. The MMS includes:



- > Feedlot pens and associated structures;
- > Surface water collection systems;
- > Effluent holding ponds;
- > Overflow ponds; and
- > Manure utilisation areas.

This MMP covers all aspects of the MMS.



## 2. FRAMPTON FLAT FEEDLOT

## 2.1 Introduction

The existing feedlot is a Level 1 feedlot accredited under the National Feedlot Accreditation Scheme (NFAS), a quality assurance scheme independently managed and audited by AUS-MEAT. Accreditation through the NFAS scheme ensures ongoing compliance with best practice animal welfare and environmental standards.

The feedlot operates in accordance with EPL 12319. The NSW Environment Protection Authority (NSW EPA) identifies EPL 12319 as a level 1 licence. A level 1 licence is only granted for an activity that poses a low risk to the environment because it generates minimal or no discharges due to its nature, or because there are good environmental controls and management procedures in place.

## 2.2 Existing Manure Management System

The existing feedlot comprises 30 open pens and associated infrastructure, including holding yards, a cattle handling facility and a feed mill. The feedlot is supported by other ancillary infrastructure.

A central concept in feedlot hydrology is that the feedlot and any associated infrastructure from which runoff might pose a pollution hazard are to be located within a small artificial catchment, generally termed a controlled drainage area (CDA).

The feedlot comprises two separate CDAs, referred to as CDA 1 and CDA 2 (Figure 1).

CDA 1 captures all runoff from the feedlot pens, feed lanes and cattle lanes. Runoff from within CDA 1 is drained to Holding Pond 1 and Holding Pond 2. Holding Pond 1 and Holding Pond 2 have an overall capacity of 5 ML.

CDA 2 captures all runoff from the area surrounding the feed mill and associated structures.

# 2.3 Proposed Modernisation and Expansion

Frampton Flat seeks to modernise and expand the existing feedlot.

The proposed modernisation and expansion includes:

- > Use of an existing building for the purpose of a covered housing system.
- > An average stocking density of 19m<sup>2</sup>.
- > A minimum stocking density of 5m<sup>2</sup>.
- > A maximum capacity of 4,500 head of cattle.

The minimum stocking density of 5m<sup>2</sup> would only be used within the covered housing system to respond to excessively wet periods, which have a detrimental effect on animal welfare.

The use of the covered housing system and reduction of the average stocking density would allow for the capacity of the feedlot to increase from 2,800 to 4,500 head of cattle.

The proposed modernisation and expansion of the feedlot will have a negligible impact on the existing MMS as rainfall over the covered housing system will be captured in a separate freshwater dam.



Increased runoff associated with the proposed modernisation and expansion will only be generated by a short cattle travel lane located between the existing uncovered feedlot and the covered housing system.

The proposed modernisation and expansion affect CDA 1 only.



Frampton Feedlot

Feedlot Stormwater and Effluent Management



Open Feedlot Pens

Cattle Lanes

Effluent Ponds and Drains

Feed Lanes

Feedmill Area Holding Pond

Handling Facility

Covered Housing System

Stormwater

Water tank

Carcass Pit



# 3. SITE SUITABILITY ASSESSMENT

# 3.1 Existing Environment

## 3.1.1 SITE LOCATION

The feedlot is located at 513 Tullibigeal Road, Tullibigeal (Lot 19 DP752341). The feedlot is approximately 2.5 km northwest of Tullibigeal (**Figure 2**).

The feedlot is located at the western extent of the NSW Central West Region, close to the periphery of the NSW Western Region.

The characteristics of the local environment are described in **Sections 3.1.2 - 3.1.7**.



Frampton Feedlot

Site Plan

Legend

Site

Road

Feedlot with Stormwater and Effluent Management

Plan No.	Revision	Date
P001	Rev B	19/06/2025

0 200 400 m



## 3.1.2 CLIMATE

The western extent of the Central West Region is semi-arid, with the climate typically being hot and dry.

Rainfall in the region is low and fairly consistent throughout the year, with an average annual total of 436 millimetres (mm). The mean annual pan evaporation is 1,892 mm. Average monthly evaporation largely exceeds average monthly rainfall in summer and through the entire year (**Figure 3**).

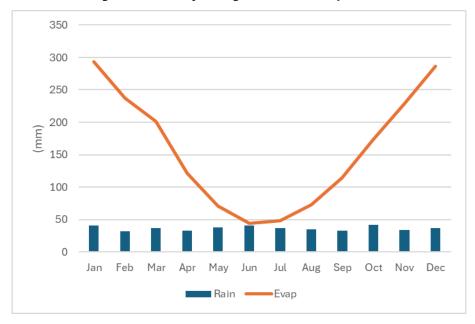


Figure 3 - Monthly average rainfall and evaporation

Source: Queensland Government. (n.d.). SILO climate data. Retrieved from https://www.longpaddock.qld.gov.au/silo/

Average monthly minimum and maximum temperatures include five months of warm weather from November until March, with average minimum temperatures above 11.5 °C and average maximum temperatures above 25.5 °C (**Figure 4**). April to October is typically cooler.

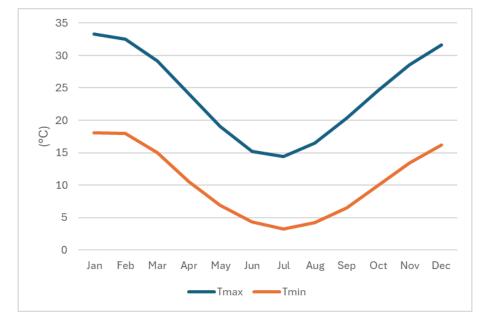


Figure 4 - Average monthly minimum and maximum temperatures

Source: Queensland Government. (n.d.). SILO climate data. Retrieved from https://www.longpaddock.qld.gov.au/silo/

## 3.1.3 TOPOGRAPHY

The topography of the area is gently undulating, with broad plains dominating the landscape.

Topographic data extracted from the Elevation and Depth- Foundation Spatial Data website (ELVIS) demonstrates that the feedlot is generally flat, with a minor slope from southeast to northwest (229 m Australian Height Datum (AHD) to 223 m AHD) (Figure 5).

## 3.1.4 SITE GEOLOGY

The Tullibigeal 1:100,000 Geological Series Sheet 8231 describes the site geology as being composed of flat to hummocky fossil sandplain. At depth, it features red brown to brown humic, clayey, silty to fine-grained sand, and silty clay, with abundant regolithic and pedogenic carbonate.

The Australian Soil Resource Information System (ASRIS) on-line database, maintained by CSIRO Land and Water, indicates there is an extremely low probability of occurrence of acid sulphate soils.

## 3.1.5 SURFACE WATER AND FLOODING

There are no major watercourses in close proximity to the feedlot. The Lachlan River is the closest major watercourse, approximately 35 km to the northeast.

Minor drainage lines are mapped to the north and south of feedlot. Drainage lines are typically discontinuous and exhibit limited channelisation, indicative of the low relief of the site and gradient of slopes

Minor drainage lines in the vicinity of the feedlot generally flow from more elevated land to the south of Tullibigeal, towards the northwest (in the general direction of the Lachlan River) (Figure 6).



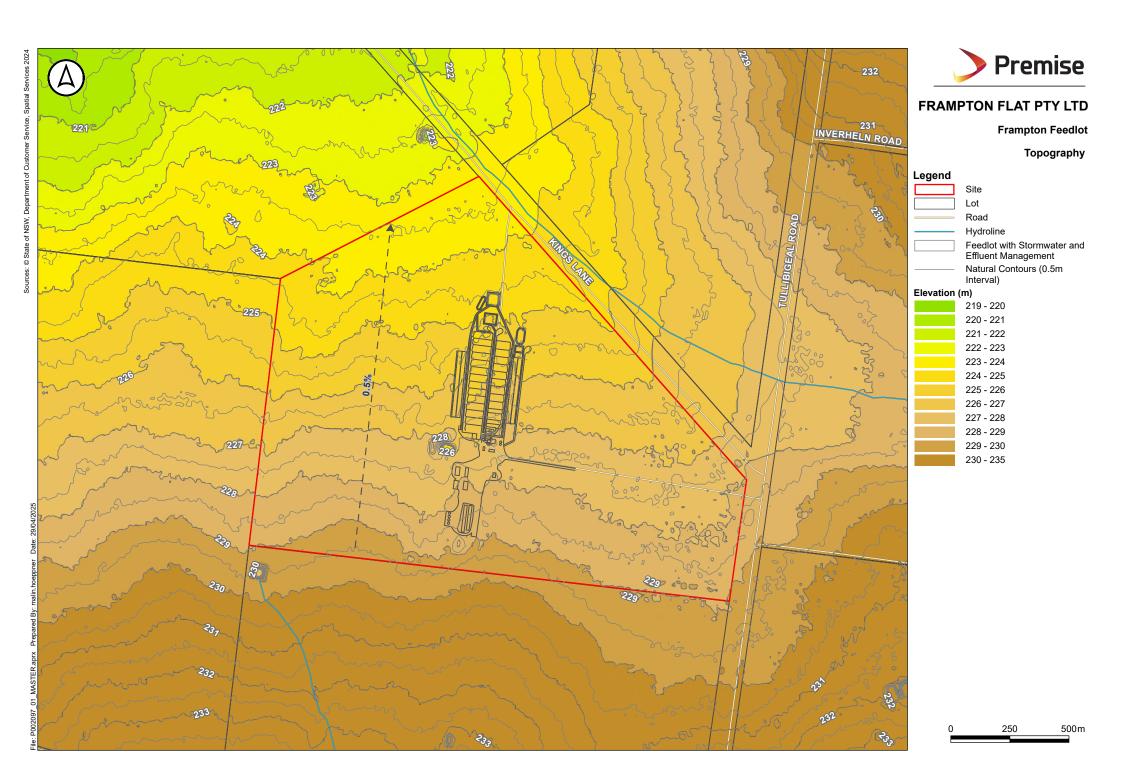
## 3.1.6 SOIL

## 3.1.6.1 Soil capability

The Land and Soil Capability (LSC) assessment scheme uses the biophysical features of land and soil, including landform position, slope gradient, drainage, climate, soil type and soil characteristics, to derive classes for a range of land and soil hazards (Office of Environment and Heritage (OEH), 2012). These hazards include:

- > Acidification hazard;
- > Mass movement hazard;
- > Shallow soil and rockiness hazard;
- > Structural decline hazard;
- > Water erosion hazard;
- > Waterlogging hazard;
- > Wind erosion hazard; and
- > Salinity.

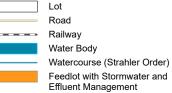
The Land and Soil Capability (LSC) of the soil landscapes across the site is shown in Figure 7.





Frampton Feedlot

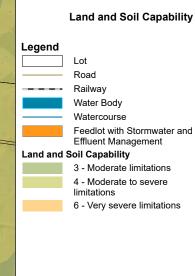
Hydrolines





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The class system ranges between Class 1 and Class 8 which represents a decreasing capability of the land to sustain land use. Class 1 represents land capable of sustaining most land uses including those that have a high impact on the soil (e.g., regular cultivation). Class 8 represents land that can only sustain very low impact land uses (e.g., nature conservation).

Soil within the facility does not present any parameter with severe limitation and presents overall good capability (**Table 1**).

**Parameter** Value Soil acidification 2 1 Mass movement **Shallow soils & rockiness** 1 Structural decline 3 Water erosion 3 **Water logging** 2 Wind erosion 3 3 **Salinity** 3 **Overall Hazard - LSC Class** Capability **Moderate limitations** 

Table 1 - Soil capability

#### 3.1.6.2 Soil classification

The Australian Soil Classification (third edition) (Isbell, R. F., & National Committee on Soil and Terrain., 2021) categorise the soil across the Frampton Feedlot site as Calcarosols. These soils are usually calcareous throughout the soil profile

They are defined as soils that:

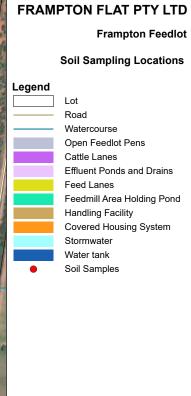
- Are either calcareous throughout the solum or calcareous at least directly below the A1 or Ap horizon, or a depth of 0.2m (whichever is shallower). Carbonate accumulations must be judged to be pedogenic, i.e. are a result of soil forming processes in situ (either current or relict). Soils dominated by non-pedogenic calcareous materials, such as fragments of limestone or shells, are excluded.
- > Do not have deep sandy soil profiles that have a field texture of sand, loamy sand or clayey sand in 80% or more of the upper 1.0m.

#### 3.1.6.3 Soil data

Soils within the solid waste utilisation area are monitored regularly and reported to the NSW Environment Protection Authority as required by EPL 12319.

Monitoring of soils has been reported annually since 2005. Soil sampling for analysis involves collecting a composite sample from each of the four (4) locations indicated in Figure 8.







The most recent monitoring results from June 2024 are presented in **Table 2**. These results indicate the following:

- > Soil presents a moderate dispersibility;
- > Available phosphorus values are high in the topsoil but low in the subsoil, reflecting no need for phosphorus fertiliser;
- > Cation Exchange Capacity (CEC) is low for topsoil and moderate for the subsoil;
- > Soil presents moderately saline conditions;
- > Soil presents non sodic conditions
- > Total nitrogen level is low in the topsoil and in the subsoil;
- > Organic carbon level is low in the topsoil and in the subsoil, reflecting poor to moderate structural condition and low to moderate structural stability;
- > Phosphorus sorption capacity is high for topsoil and subsoil, indicating a strong soil ability to retain phosphorus, preventing it from leaching into groundwater or being easily lost from the soil profile;
- > pH presents a moderately acid condition for topsoil and a neutral condition for subsoil.

Table 2 - Soil monitoring results

Analyte	Units	Required frequency	Topsoil	Subsoil
Aggregate Stability	Emerson	3 Years	3	3
Available Phosphorus	mg./kg	Yearly	89.4	5.7
Bulk Density	kg/m³	3 Years	1630	1440
Cation Exchange Capacity	meq/100g	Yearly	7.5	20.00
Moisture content	%		13.9	17.6
Chloride	mg/kg	Yearly	<50	160
Electrical Conductivity (1:5)	μS/cm	Yearly	706	629
Exchangeable Aluminium	meq/100g	Yearly	<0.1	<0.1
Exchangeable Calcium	meq/100g	Yearly	4	10.2
Exchangeable Magnesium	meq/100g	Yearly	2.1	8.8
Exchangeable Potassium	meq/100g	Yearly	1.3	0.8
Exchangeable Sodium	meq/100g	Yearly	<0.1	0.2
Exchangeable Sodium Percentage	%	Yearly	0.3	1.0
Nitrate	mgN/kg	Yearly	16.4	1.4
Total Nitrogen	mgN/kg	Yearly	1140	580
Organic Carbon	%	Yearly	0.7	0.6
Phosphorus Sorption Capacity	mg/kg	3 Years	719	851
pH 1:5	pH units	Yearly	5.7	6.6



#### 3.1.7 GROUNDWATER

Groundwater bores within and around the facility are described in **Table 3**, with their locations identified in Figure 9.

The closest registered bore outside the feedlot site is located approximately 200 meters south of the feedlot boundary, within Lot 17 DP752341. Lot 17 DP752341 is owned by the proponent.

The closest registered stock and domestic bore not associated with the feedlot is located further than one (1) km from the site boundary.

The closest registered bore for public/municipal intended purpose is located around 1.4 km south of the feedlot boundary, at the periphery of Tullibigeal.

**Table 3 – Groundwater bores** 

Location	Bore ID	Purpose	Standing water level (SWL) (m)	Water bearing zone first encounter (m)
Within the	GW700430	Industrial	23	56
facility	GW701469	Monitoring	9	56
	GW704751	Domestic, industrial, stock	24	53
	GW703612 <sup>1</sup>	Domestic, stock	24	51
	GW700106	Domestic, industrial, stock	26	28
	GW701474 <sup>1</sup>	Stock	9	56
Outside of	GW002784	Not known	24.4	63.7
the facility (3,000m)	GW020937	Not known	NA	NA
(5,555)	GW090063	Monitoring bore	27.3	7
	GW002092	Not known	25.9	16.8
	GW020936	Not known	20.7	46
	GW002435	Water supply to Frampton feedlot	22.6	27.4
	GW003536	Not known	44.2	62.5
	GW704386	Domestic, stock	8	20
	GW002559	Not known	16.5	21.3
	GW003093	Not known	NA	58.8
	GW013763	Not known	NA	NA
	GW003526	Public / Municipal	NA	NA

<sup>&</sup>lt;sup>1</sup> Bore does not exist; this is confirmed from Premise site visit on 21/11/2024.



Location	Bore ID	Purpose	Standing water level (SWL) (m)	Water bearing zone first encounter (m)
NA: Not availab	ole			



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**Groundwater Bores** 





## 3.2 Water Balance Monitoring

The Control Drainage Area (CDA) 1 captures all runoff from the feedlot pens, feed lanes and cattle lanes.

Runoff from within CDA 1 is drained to Holding Pond 1 (2 ML) and Holding Pond 2 (3 ML). Holding Pond 1 and Holding Pond 2 have an overall capacity of 5 ML.

Any increase in runoff associated with proposed modernisation and expansion will be generated by a short cattle travel lane located between the existing uncovered feedlot and the covered housing system.

Water balance modelling was conducted for CDA 1 to evaluate whether Holding Pond 2 and the Overflow Pond could accommodate additional runoff from the cattle lane associated with the covered housing system without exceeding a spill frequency of one in 20 years.

The water balance model incorporates 135 years of daily climate data (SILO data) for Tullibigeal. Simulations were conducted both with and without the additional runoff to assess the impact on the existing Holding Pond 2 and the Overflow Pond

Water balance modelling was not undertaken for CDA 2 as it is not impacted by the proposed modernisation and expansion.

#### 3.2.1 CONTROL DRAINAGE AREA AND HYDROLOGY

Daily-step hydrological modelling of CDA 1 has been used to establish that Holding Pond 2 and the Overflow Pond can accommodate additional runoff from the cattle travel lane between the existing feedlot and the covered housing system.

Runoff was calculated using the United States Department of Agriculture Soil Conservation Service (USDA SCS) rainfall runoff model which is represented by the following equation:

$$R = \frac{P - 5 \times \left[ \left( \frac{1000}{K} - 10 \right) \right]^2}{P + 20 \times \left[ \frac{1000}{K} - 10 \right]}$$

Where:

R = runoff (mm);

P = precipitation (mm); and

K = catchment index representative of the soil-cover complex in the catchment.

Different values of the catchment index, K1, K2 and K3, are applied to represent respectively very dry, normal, or very wet soil/manure moisture conditions. The K values applied to the feedlot are shown in **Table 4**.



Table 4 - Catchment index values

Catchment	K1 (very dry)	K2 (normal)	K3 (very wet)
Pens	70	72	75
Hard	80	80	80
Soft	50	70	78
Rain in preceding 10 days (mm)	0	10	30

Holding Pond 1, Holding Pond 2, and the Overflow Pond function as evaporative ponds; therefore, an irrigation module is not included in the water balance modelling.

Water balance modelling presented in the MMP demonstrates that Holding Pond 1 will not spill. Water balance modelling shows spills from Effluent Holding Pond 2 will be captured by the Overflow Pond, which is likely to spill 1:33.7 years. The total volume of spill is modelled as 0.01 ML.

#### 3.2.2 WATER BALANCE RESULTS

The water balance model results for CDA 1 are shown in **Table 4** and Figure 10.

#### Results show that:

- > The proposed modernisation and expansion increase the runoff managed by Holding Pond 2 by 3%; and
- > The proposed Overflow Pond would spill an average of 1in 33.75 years, meeting the maximum spill frequency of 1 in 20 years

Unit **Value Spilling frequency Parameter** from overflow pond Runoff existing 1,158 kL/year 1 in 33.75 years Runoff proposed kL/year 1,194 1 in 33.75 years development Runoff increase kL/year 36 Runoff increase % 3.1%

Table 5 - Runoff increase from development

## 3.3 Water requirements and access licences

#### 3.3.1 WATER REQUIREMENT

The proposed expansion to 4,500 cattle head with an average weight of 500 kilograms (kg), will generate a requirement for 90 ML of water per year based on the Feedlot Guidelines.



However, a study by Davis, Wiedemann and Watts (2008) identified that the water use for feedlots is closer to 16.75 ML/1,000 head, based on data from operating feedlots. This results in an annual water use of approximately 76.5 ML.

Recent observations at Frampton feedlot indicate that cattle housed within the existing farm building, the subject of the Development Application, typically drink 25-30% less water than cattle within the existing feedlot. Conservatively, this would reduce average consumption to 14.25 ML per 1,000 head per year. This would result in an annual demand of 67.3 ML/year

The feedlot's water supply is primarily groundwater, with Water Access Licence 28445 (WAL 28445) allowing a total yearly groundwater extraction of 52 ML. A further 3.7 ML/year will be obtained from stormwater collected from the existing farm building.

The balance of the required volume of water can be sourced from on-site fresh water captured from the covered housing system roof and the local reticulated water supply from Lake Cargelligo.

#### 3.3.2 FEEDLOT WATER MANAGEMENT

#### 3.3.2.1 Stormwater Management

The feedlot and feedmill areas are excluded from overland drainage, with associated stormwater being captured and diverted to their effluent management systems.

All existing ponds were designed in accordance with the EPA.

The first effluent holding pond collects run off from the central feed lane in between the existing open pens. Its capacity is around three (3) ML.

The second effluent holding pond collects run off from the open pens and associated cattle movement areas. Its capacity is around two (2) ML.

An overflow pond, with an estimated capacity of 2 ML, is proposed adjacent to the second effluent pond as a mitigation measure to manage the increased runoff generated by the proposed development.

Only the cattle lane leading to the covered housing system will add runoff to the existing CDA collecting wastewater to the effluent holding pond 2. The CDA area collecting wastewater to the effluent pond 1 is unaffected by the development.

Runoff from the covered pens feed lanes will naturally flow onto the existing pasture.

#### 3.3.2.2 Roof Water Collection

The constructed housing system is 280 m x 40 m, including four (4) m overhang. The covered housing system will direct all roof rainwater into a roof stormwater collection dam with a three (3) ML capacity via concrete roof stormwater catchment aprons. This water will be stocked in the winter and used in summer to supply water to the cattle. Freshwater will be pumped from the dam to the two water tanks.

Any overflow from the roof stormwater collection dam will be collected by the roof stormwater overflow dam. Its capacity is estimated at three (3) ML from Premise site visit.

All values are in ML/year 0.05 0.01 0.2 Open feedlot Feedlot Holding feedlane runoff pond 1 (3 ML) 0 ML/yr No spill 0.11 0.19 0.10 0.19 Open feedlot pens 1.2 and covered housing Overflow pond Feedlot Holding system cattle lane (2 ML) pond 2 (2 ML) runoff 0.17 ML/yr 0.01 1 spill in 33.75 years 0.33 0.64 0.07 0.11 Spill 0.35 4.4 Overflow pond Roof Holding Housing roof system (2 ML) pond (3 ML) 0.004 Water Supply 1 spill in 135 years 86.3 Groundwater and reticulation water

Figure 10 – Water balance results for feedlot expansion



#### 4. WASTE MANAGEMENT PLAN

## 4.1 Liquid waste

Water balance modelling discussed in **Section 3.2.2** demonstrates that the increase in runoff entering Holding Pond 2 is negligible. Further, Overflow Pond 2 ensures a spilling frequency over 1 in 20 years, with a modelled spill frequency of 1 in 33 years (Figure 10).

#### 4.2 Solids waste

#### 4.2.1 GENERATION AND UTILISATION

Manure harvesting of the open feedlot occurs at least once every four months, with increased frequency during the summer months to ensure the manure pack does not exceed a depth of 50 mm.

Manure harvesting in the covered housing system will occur every six to eight weeks, exceeding the requirements of the Feedlot Guidelines.

All harvested manure will be used on-site as a soil ameliorant or exported off-site to nearby properties owned or leased by the proponent. Pending availability, harvested manure may be sold to others.

The proposed expansion will generate 1,575 t of manure annually (**Table 6**).

Table 6 - Manure harvesting

Parameter	Units	Value
Cattle	head	4,500
Cattle	SCU	3,915
Harvested yield of manure from feedlots that retain the interface layer	t TS/SCU/year	0.42
Total harvested manure from feedlot	t/year	1,575

The generation of 1,575 t of manure annually will generate a requirement for 360 ha of dryland cropping (i.e. one-year wheat and two years of barley) in order to achieve phosphorus balance (**Table 7** and **Table 8**).

The requirement for 360 ha can be met on-site and within a further 10,000 ha of land either owned or leased by the proponent.

Table 7 – Area requirements for solids spreading

Parameter		Units	Nitr	ogen	Phosp	horus
Nutrient recovery	%	t/year	2.18*	34.3	0.8*	12.6
Nutrient remove by cropping program	kg/ha/year		162		35	
Area required for nutrient spreading		ha	2	12	36	0

<sup>\*</sup>Typical composition of Australian feedlot aged (stockpiled) manure - Beef cattle feedlots: waste management and utilisation (Meat & Livestock Australia, 2015);



**Table 8 - Manure utilisation** 

Compost use	%	Tonnes/year
Compost reuse at the facility (210ha)	58	919
Compost for exportation	42	656

Separation (buffer) distance to surface water were derived from the NSW Feedlot manual. Other buffer distances are derived from the Dairy Guidelines for the land application of effluent and manure (DPI, 2008). Suggested minimum separation from these references and the distance adopted for manure spread are listed in Figure 9.

The only distance requirement impacting availability of land for manure spreading is the ten (10) metres to the property boundaries (**Figure 11**).

Table 9 – Suggested and adopted minimum separation distances for manure spreading

Feature	Separation distance (NSW manual feedlot), m	Separation distance (DPI, 2008), m	Distance adopted
Downslope surface water	100		100
Bore, well or spring supplying potable water		100	100
Major River and Creek	100		100
Minor or intermittent watercourses		50	50
Dry run-off/erosion gullies on properties		10	10
Property boundaries		10	10





### FRAMPTON FLAT PTY LTD

Frampton Feedlot

Manure Management Plan Manure Spreading Area

Site

Watercourse

Feedlot as constructed under DA2004/0092

Farm building approved under DA2024/6

Water supply system (permitted without consent)

Buffers and Exclusion Zone

Manure Spreading Area (202.52ha)

400m 200



#### 5. ASSESSMENT

#### 5.1 Surface water

#### 5.1.1 SETTING

There are no major watercourses in close proximity to the feedlot. The Lachlan River is the closest major watercourse, approximately 35 km to the northeast.

Minor drainage lines are mapped to the north and south of feedlot. Drainage lines are typically discontinuous and exhibit limited channelisation, indicative of the low relief of the site and gradient of slopes

Minor drainage lines in the vicinity of the feedlot generally flow from more elevated land to the south of Tullibigeal, towards the northwest (in the general direction of the Lachlan River).

#### 5.1.2 POTENTIAL IMPACTS

The proposed feedlot expansion does not increase the risk of potential impact on surface water.

#### 5.1.3 MITIGATION MEASURES

The existing potential surface water impacts will continue to be mitigated by:

- > Adopting the recommended separation distances for the application of solids from the feedlot operation. This would provide a buffer to filter any site runoff.
- > Managing the solids application program to ensure excess nutrients are not available to move to the surface water systems.
- > Ensuring adequate ground cover is maintained on cropping areas to limit soil erosion (except as required during periods of ground preparation and sowing).
- > Monitoring the manure management system in accordance with feedlot EPL 12319 and this MMP.

#### 5.2 Groundwater

#### 5.2.1 SETTING

All bores within the facility have a SWL of at least nine (9) meters deep, with the first water-bearing zone encountered at a minimum depth of 28 meters.

All bores outside the facility area at least 200 meters away, exceeding the recommended minimum distance of 100 meters for bores, wells, or springs that supply potable water.

#### 5.2.2 POTENTIAL IMPACTS

The proposed feedlot expansion does not increase the risk of potential impact on groundwater.

#### 5.2.3 MITIGATION MEASURES

The existing potential groundwater impacts will continue to be mitigated by monitoring the manure management system in accordance with EPL 12319 and this MMP.



#### 5.3 Soil resources

#### 5.3.1 SETTING

Soil monitoring, in accordance with EPL 12319, shows that the existing dryland areas are suitable for controlled solids spreading under proper management practices.

#### 5.3.2 POTENTIAL IMPACTS

The proposed feedlot expansion does not increase the risk of potential impact on soil resources.

#### 5.3.3 MITIGATION MEASURES

Potential soil resource impacts will continue to be mitigated by managing solids application in line with the MMP and adjusting the plan based on trends observed through monitoring required by EPL 12319.

The feedlot proponent owns over 10,000 ha of land that he can used for manure spreading, allowing the site's soils to be rested if needed.



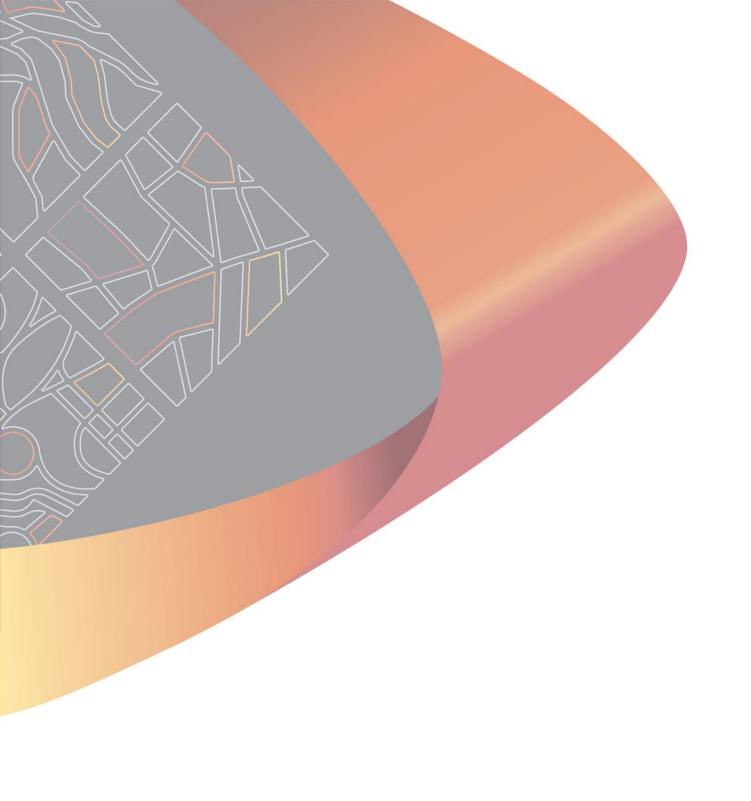
### 6. CONCLUSION

The MMP demonstrates that the proposed modernisation and expansion has a negligible impact on the existing wastewater management, by increasing the total run-off by only 3%

The incorporation of the Overflow Pond for Holding Pond 2 ensures an improvement of the overall wastewater management. Water balance modelling demonstrates that a spilling frequency of 1 in 33 years, in accordance with the Feedlot Guidelines.

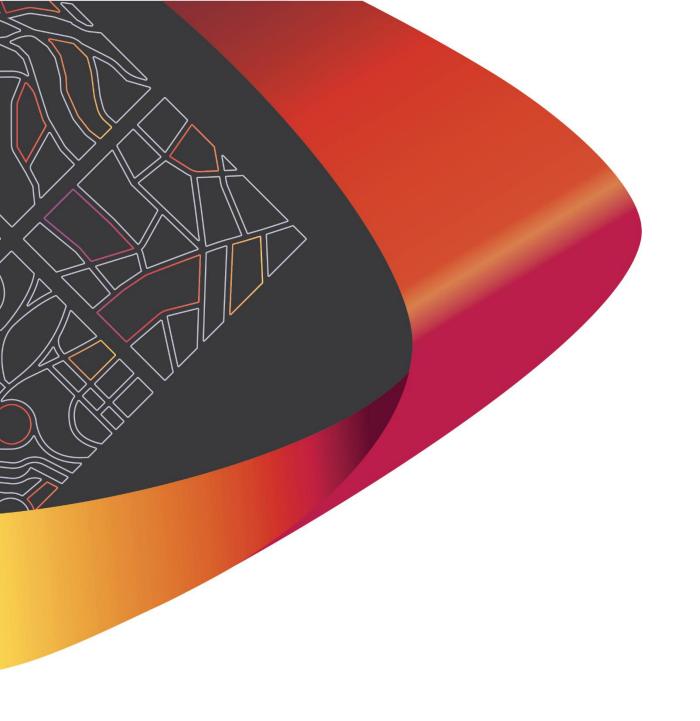
With its current Water Access Licence (WAL), access to reticulated water, and an emergency bore with a 240 ML Bore Extraction Limit (BEL), the feedlot has sufficient water to operate with 4,500 cattle.

The addition of the roof stormwater collection dam further enhances the safety and reliability of freshwater supply for the cattle in emergency situations.





# **APPENDIX C**ENVIRONMENTAL MONITORING SUMMARY



# **Environmental Monitoring Summary**

Frampton Flat Pty Ltd

Rev: C

P002097

1 July 2025



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#### 1. INTRODUCTION

## 1.1 Background and Objectives

The Frampton Flat Feedlot, located at 513 Tullibigeal Road, Tullibigeal, has been in operation since 2005 under Development Consent 92/2004 and Environment Protection Licence 12319 (EPL 12319). The facility is a Level 1 feedlot accredited under the National Feedlot Accreditation Scheme (NFAS), ensuring compliance with best practice animal welfare and environmental standards. EPL 12319, issued by the NSW Environment Protection Authority (NSW EPA), is classified as a Level 1 licence, indicating that the facility poses a low environmental risk due to minimal or no discharges and the presence of effective environmental management controls.

This report assesses the environmental performance of the Frampton Flat Feedlot over the past ten (10) years, with consideration of specific condition of EPL 12319. The key objectives of the report are to:

- > Demonstrate compliance with odour, effluent management, groundwater monitoring, and annual reporting conditions of EPL 12319.
- > Evaluate available soil, groundwater, and manure analysis data to assess potential environmental impacts.
- > Provide a qualitative assessment of odour management.
- > Analyse weighbridge data to quantify manure removed from the site.
- > Confirm the nature of any effluent pond overflows and contingency monitoring requirements.
- > Summarise findings and recommend any necessary management improvements.

## 1.2 Scope of the Report

This report presents an evaluation of environmental monitoring data and operational practices at the Frampton Flat Feedlot. The scope includes:

- > A qualitative assessment of odour management based on on-site observations and records of community feedback
- > Review of effluent application practices, potential environmental impacts, and compliance with EPL 12319 requirements.
- > Analysis of groundwater quality trends based on ten years of monitoring data.
- > Assessment of soil conditions in the solid waste utilisation area and manure composition over time.
- > Manure Management Quantification of manure removed from the site using site weighbridge data.
- > Effluent Pond Management Confirmation of compliance with overflow monitoring requirements during recorded overflows, as appropriate.

This report does not include an assessment of broader regional environmental conditions beyond the site boundary, nor does it address operational aspects unrelated to environmental compliance.



### 2. SITE DESCRIPTION

## 2.1 Site Location

The feedlot is located at 513 Tullibigeal Road, Tullibigeal (Lot 19 DP752341). The feedlot is approximately 2.5 km northwest of Tullibigeal.

The feedlot is located at the western extent of the NSW Central West Region, close to the periphery of the NSW Western Region.

#### 2.2 Climate

The western extent of the Central West Region is semi-arid, with the climate typically being hot and dry.

Rainfall in the region is low and fairly consistent throughout the year, with an average annual total of 436 millimetres (mm). The mean annual pan evaporation is 1,892 mm. Average monthly evaporation largely exceeds average monthly rainfall in summer and through the entire year.

Average monthly minimum and maximum temperatures include five months of warm weather from November until March, with average minimum temperatures above 11.5 °C and average maximum temperatures above 25.5 °C. April to October is typically cooler.

## 2.3 Topography

The topography of the area is gently undulating, with broad plains dominating the landscape. The feedlot area is generally flat, with a minor slope from southeast to northwest.

## 2.4 Site Geology

The Tullibigeal 1:100,000 Geological Series Sheet 8231 describes the site geology as being composed of flat to hummocky fossil sandplain. At depth, it features red brown to brown humic, clayey, silty to fine-grained sand, and silty clay, with abundant regolithic and pedogenic carbonate.

## 2.5 Surface Water and Flooding

There are no major watercourses in close proximity to the feedlot. The Lachlan River is the closest major watercourse, approximately 35 km to the northeast.

Drainage lines are typically discontinuous and exhibit limited channelisation, indicative of the low relief of the site and gradient of slopes. Minor drainage mapped to the north and south of feedlot and in the vicinity of the feedlot generally flow from more elevated land to the south of Tullibigeal, towards the northwest (in the general direction of the Lachlan River).

### 2.6 Soil

The *Australian Soil Classification* (third edition) (Isbell, R. F., & National Committee on Soil and Terrain., 2021) categorise the soil across the Frampton Feedlot site as 'Calcarosols'. These soils are usually calcareous throughout the soil profile and are defined as soils that:

> Are either calcareous throughout the solum – or calcareous at least directly below the A1 or Ap horizon, or a depth of 0.2m (whichever is shallower). Carbonate accumulations must be judged to be pedogenic,



ie. are a result of soil forming processes in situ (either current or relict). Soils dominated by non-pedogenic calcareous materials, such as fragments of limestone or shells, are excluded.

> Do not have deep sandy soil profiles that have a field texture of sand, loamy sand or clayey sand in 80% or more of the upper 1.0m.

Soil of the solid waste utilisation area is monitored regularly and reported to the NSW Environment Protection Authority as required by EPL 12319. Monitoring of soils has been reported annually since 2005. Soil sampling for analysis involves collection and composition of samples from four (4) locations within the solid waste utilisation area, at depths corresponding to topsoil and subsoil.

#### 2.7 Groundwater

Four (4) groundwater bores are located within the facility and a further twelve (12) bores are located within a 3 km radius of the site. The closest registered bore outside the feedlot site is located more than 200 m south of the feedlot boundary, within Lot 17 DP752341. Lot 17 DP752341 is owned by the proponent.

The closest registered stock and domestic bore not associated with the feedlot is located further than one (1) km from the site boundary.

The closest registered bore for public/municipal intended purpose is located around 1.4 km south of the feedlot boundary, at the periphery of Tullibigeal.



### 3. ENVIRONMENTAL MONITORING DATA

## 3.1 Soil and Solids Monitoring

The long-term dataset of soil and solids monitoring at the feedlot provides an indication of the stability of soil properties under routine management practices. The monitored parameters of solids, including electrical conductivity, moisture content, total phosphorus, and total Kjeldahl nitrogen have shown a significant degree of variance, as would be expected for a cattle feedlot with differing loads and management practices being adopted as part of day-to-day operations.

Monitored parameters of topsoil and subsoil samples collected from solid waste utilisation area in June (Winter) of each year, have been recorded to be generally stable. Whilst some degree of fluctuations has been observed and is to be expected in an area where solid waste in the form of manure is applied with regularity, no adverse trends have been recorded.

Nutrient or salinity imbalances and/or accumulation is not evident in the soil of the solid waste utilisation area, as evidenced in recorded analytical results of the following parameters:

- > pH topsoil is tending to be more acidic than subsoil, however recorded levels shown to fluctuate with no increasing (or decreasing) trend apparent in topsoil or subsoil. Refer **Figure 1**.
- > Total nitrogen, nitrate and available phosphorus higher concentrations recorded in topsoil than subsoil, however recorded concentrations shown to fluctuate with no increasing (or decreasing) trend apparent in topsoil or subsoil. Refer **Figure 2** to **4**.
- > Exchangeable cations and chloride minimal difference in concentrations recorded between topsoil and subsoil. Fluctuations most notable in exchangeable calcium and magnesium, and total chloride for both topsoil and subsoil, however no apparent increasing (or decreasing) trends are recorded. Refer **Figure 5** to **7**.
- > Organic carbon comparable concentrations recorded in topsoil than subsoil, and minimal fluctuations are evident. No increasing (or decreasing) trend apparent in topsoil or subsoil. Refer **Figure 8**.

Soil Monitoring Data, pH 1:5

7.5

6.5

6.0

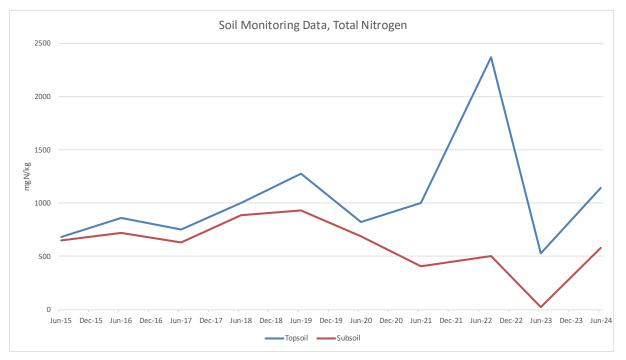
5.0

Jun-15 Dec-15 Jun-16 Dec-16 Jun-17 Dec-17 Jun-18 Dec-18 Jun-19 Dec-19 Jun-20 Dec-20 Jun-21 Dec-21 Jun-22 Dec-22 Jun-23 Dec-23 Jun-24

— Topsoil — Subsoil

Figure 1 - Solids Utilisation Area, Soil pH





Soil Monitoring Data, Nitrate

100

80

40

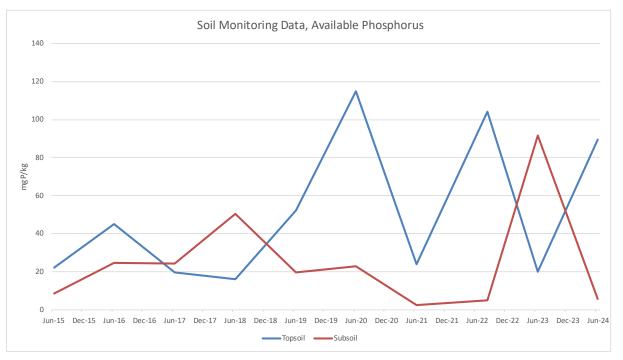
20

Jun-15 Dec-15 Jun-16 Dec-16 Jun-17 Dec-17 Jun-18 Dec-18 Jun-19 Dec-19 Jun-20 Dec-20 Jun-21 Dec-21 Jun-22 Dec-22 Jun-23 Dec-23 Jun-24

Topsoil Subsoil

Figure 3 – Solids Utilisation Area, Soil Nitrate







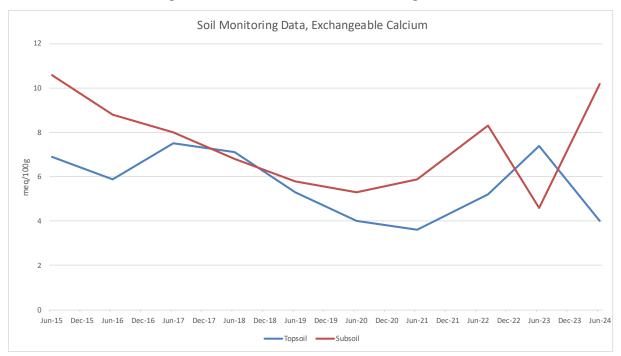
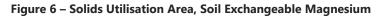
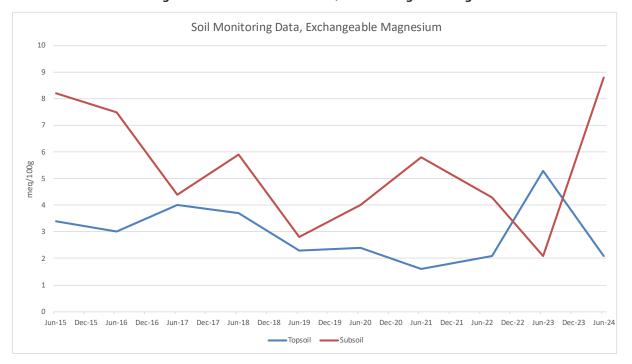


Figure 5 – Solids Utilisation Area, Soil Exchangeable Calcium





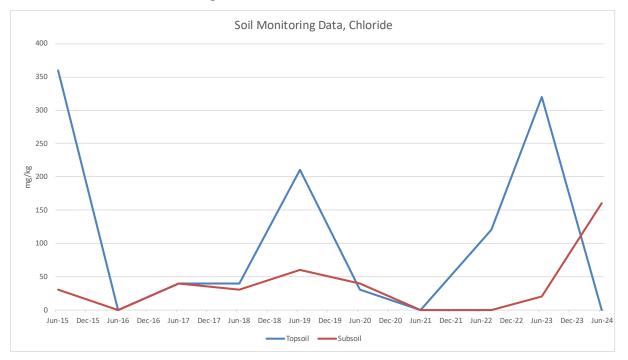
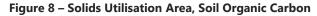
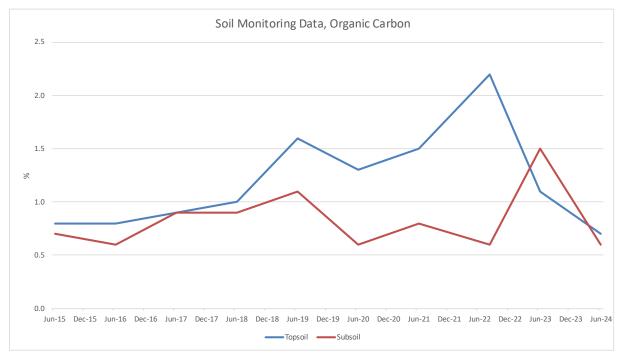


Figure 7 - Solids Utilisation Area, Soil Chloride





Testing of the soil in the solids utilisation area has established that the soil structure remains conducive to manure application. Overall, the data supports the conclusion that current management practices are effective, with the monitored values indicative of minimal impacts to soil.



## 3.2 Effluent Discharge Monitoring

The effluent holding ponds in the north of the site, identified in EPL 21319 as Point 1, capture runoff from the feedlot pens and function as evaporative ponds. In the 10-year period from 2016 to 2025, no overflows or discharges from these ponds have been reported. As such, no sampling or analysis of discharged effluent has been required under the conditions of EPL 12319. During routine six-monthly environmental monitoring events, no visual evidence of effluent discharge has been observed.

## 3.3 Groundwater Monitoring

The groundwater monitoring program consists of sampling of a single groundwater bore (EPL 12319 monitoring point 5) located approximately 100 m south of the west of the feedlot surface water collection dam (EPL 12319 monitoring point 1). Biannual monitoring of the groundwater bore is intended to identify any impacts to groundwater potentially arising from impacts associated with the feedlot surface water collection dam, and/or the solid waste utilisation area surrounding the feedlot.

Groundwater sampling and analysis has identified that pH and electrical conductivity (EC) values have been maintained within appropriate threshold levels, indicative of minimal leaching of salts or dissolved ions into the groundwater system. Similarly, analysis of nutrient content in groundwater, including ammonia, nitrate, and total nitrogen are indicative of minimal impacts from the feedlot's operations.

Nutrient or salinity imbalances and/or accumulation is not evident in the groundwater at the feedlot's monitoring, as evident in recorded analytical results of the following parameters:

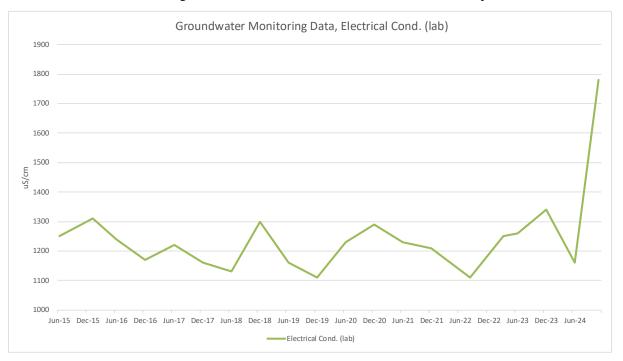
- > pH slightly alkaline and relatively stable, fluctuating between 7.99 and 8.38, Refer **Figure 9**.
- > Electrical Conductivity (EC) brackish but generally stable, noting increase in most recent groundwater monitoring event (November 2024). Future monitoring scheduled for June 2025 will establish the significance of this increase. Refer **Figure 10**.
- > Ammonia generally low and ranging from below detection limits to less than 0.1 mgN/L. No apparent increasing (or decreasing) trends are recorded. Refer **Figure 11**.
- > Nitrate generally stable, noting fluctuations and increase in recent groundwater monitoring events (June 2023 to November 2024). Future monitoring scheduled for June 2025 will establish the significance of these fluctuations. Refer **Figure 12**.
- > Total Nitrogen generally stable, noting fluctuations and increase in recent groundwater monitoring events (June 2023 to November 2024). Future monitoring scheduled for June 2025 will establish the significance of these fluctuations. Refer **Figure 13**.
- > Total Phosphorus minor fluctuations, noting increase in most recent groundwater monitoring event (November 2024). Future monitoring scheduled for June 2025 will establish the significance of this increase. Refer **Figure 14**.

8.40
8.30
8.10
8.00

7.90
Jun-15 Dec-15 Jun-16 Dec-16 Jun-17 Dec-17 Jun-18 Dec-18 Jun-19 Dec-19 Jun-20 Dec-20 Jun-21 Dec-21 Jun-22 Dec-22 Jun-23 Dec-23 Jun-24
—pH (lab)

Figure 9 – Feedlot Groundwater, pH

Figure 10 - Feedlot Groundwater, Electrical Conductivity



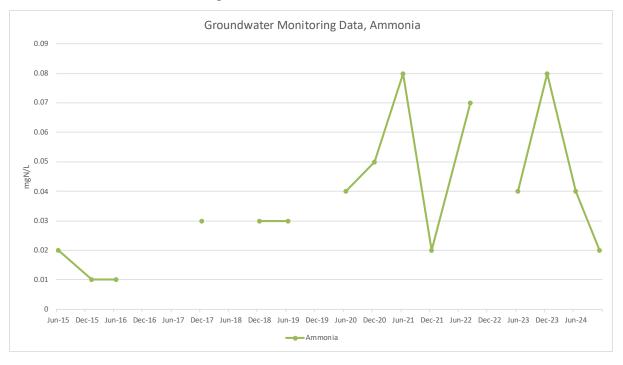
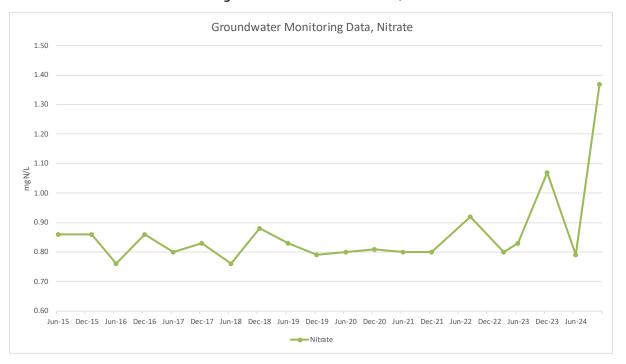


Figure 11 – Feedlot Groundwater, Ammonia





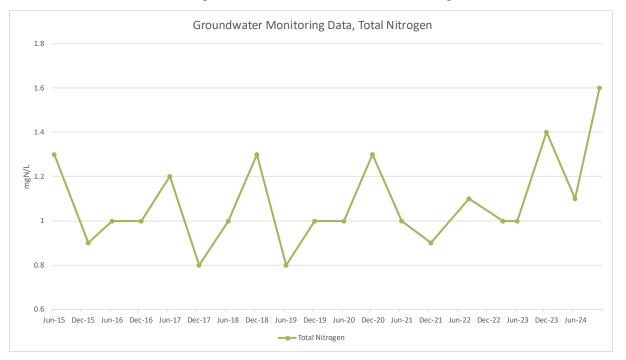
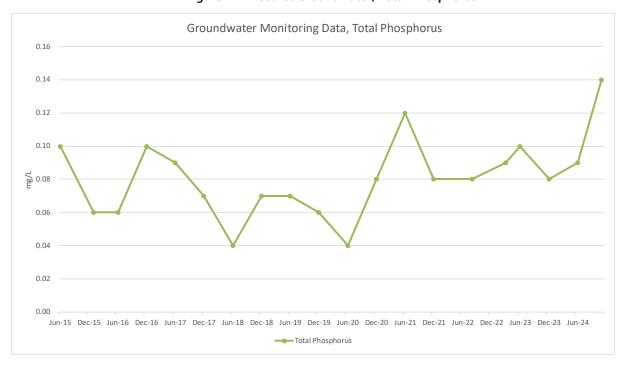


Figure 13 - Feedlot Groundwater, Total Nitrogen

Figure 14 - Feedlot Groundwater, Total Phosphorus



Overall, the groundwater monitoring data is indicative of minimal impacts from feedlot operations to groundwater and the surrounding environment.

## 3.4 Qualitative Odour Assessment

Odour management at Frampton Feedlot is implemented in response to internal observations from site personnel, and potential community concerns. No odour complaints are understood to have been reported to the feedlot from the public over the past ten years, however site personnel are trained to identify odours of



concern during routine operations and report accordingly. Regular inspections are undertaken by staff, particularly during and following manure handling, effluent application, and pen cleaning activities, which are typically associated with a higher risk of odour generation. In the event of odours requiring management being detected, actions such as adjusting timing of operations, modifying handling procedures, or increasing manure removal frequency may be implemented to mitigate off-site impacts.

The absence of formal complaints is considered to be attributable to application of best practice management at the feedlot. Any incidents of concern raised by site personnel are recorded and reviewed as part of the site's internal environmental management system. This approach ensures that odour is managed in accordance with operational protocols aligned with the National Feedlot Accreditation Scheme.



#### 4. WEIGHBRIDGE MANURE RECORDING

#### 4.1 Annual Manure Removal Volumes

In accordance with EPL 12319, all solid waste material (manure) removed from the licensed premises is weighed and recorded using the on-site weighbridge. Annual totals are compiled to track the volume of material exported from the feedlot for use off-site, typically as a soil amendment or fertiliser. This data forms part of the facility's annual environmental reporting obligations.

### 4.2 Compliance with Licence Conditions

The weighbridge system enables the site to demonstrate compliance with Section M7 of EPL 12319 (Requirement to monitor volume or mass: Point 3) to quantify manure removed from the premises. Weighbridge data recording ensures 'best-practice' of waste movements and can be used to demonstrate that solid waste material is not stockpiled in excess or disposed of inappropriately.



#### 5. CONCLUSIONS AND RECOMMENDATIONS

## 5.1 Summary of Findings

The environmental monitoring data collected in the period from 2015 to 2025 establishes that Frampton Feedlot's management practices are sustainable in that environmental stability is maintained. Long-term soil and solids monitoring has revealed that monitored parameters, including pH, nutrient levels (total nitrogen, nitrate, and available phosphorus), and salinity, remain stable in both topsoil and subsoil, even with the routine application of manure. The absence of adverse trends in these parameters confirms that soil health is not compromised by current practices. Additionally, the effluent holding ponds have consistently performed as designed, with no overflows or discharges observed during regular six-monthly monitoring events.

Groundwater monitoring further supports the conclusion of minimal environmental impact, with parameters including pH, electrical conductivity, and nutrient levels (ammonia, nitrate, total nitrogen, and total phosphorus) remaining within acceptable thresholds. Although minor fluctuations were noted in some groundwater parameters during recent monitoring events, these remain within an expected degree of variance, and further evaluation is pending. Qualitative odour assessments indicate that routine internal inspections have effectively prevented any odour issues, as evidenced by the absence of public complaints over the past ten years.

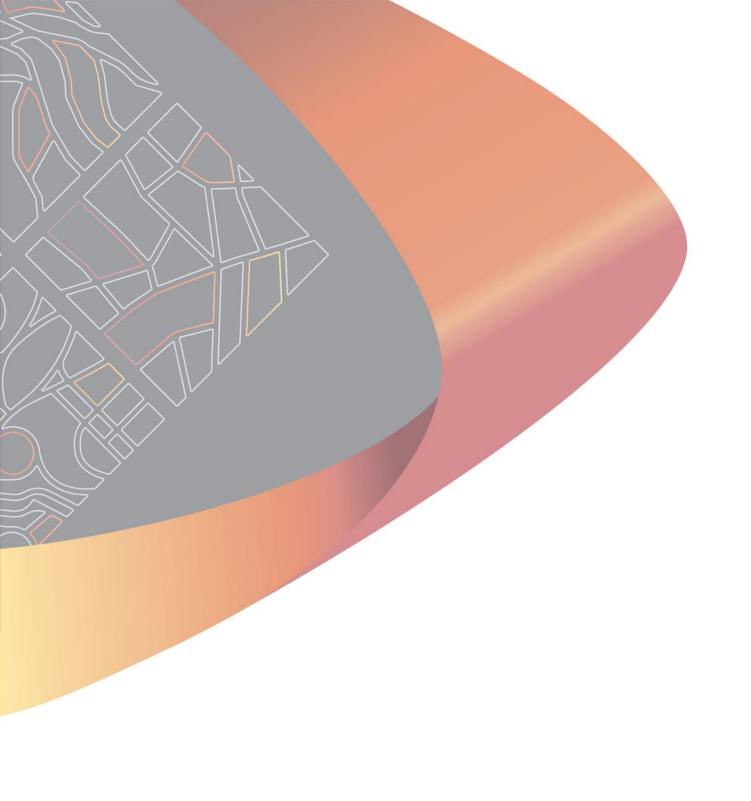
Further, the weighbridge manure recording system confirms compliant removal of solid waste, aligning with regulatory requirements.

### 5.2 Recommendations for Ongoing Environmental Management

To ensure continued environmental compliance and optimal site performance, it is recommended that current monitoring and management practices be maintained. Continuing the current program of data collection, analysis, and staff training is essential to identify and address adverse trends with potential to impact soil, water, or air quality.

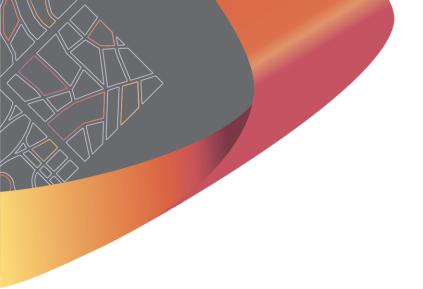
Key recommendations include:

- > Enhanced Monitoring: Continue biannual groundwater monitoring and consider additional sampling and/or additional groundwater monitoring points if nutrient levels show sustained and adverse fluctuations.
- > Staff Training: Maintain and update training programs for site personnel to ensure early detection and prompt response to any environmental concerns.
- > Record Keeping: Ensure documentation of weighbridge data to verify manure removal practices in compliance with regulatory requirements.





# APPENDIX D LEVEL 1 ODOUR ASSESSMENT



## **MEMO**

**To:** Frampton Flat Pty Ltd

From: Premise Australia Pty Ltd

cc: N/A

**Date:** 01/07/2025

**Job #** P002097

**Re:** Frampton Flat Pty Ltd - Level 1 Odour Impact Assessment

#### INTRODUCTION

- > Premise Australia Pty Ltd (Premise) has been engaged by Frampton Flat Pty Ltd to provide advice in relation to the proposed modernisation and expansion of the existing cattle feedlot ('feedlot') at 513 Tullibigeal Road, Tullibigeal (the 'site'). The existing feedlot was redeveloped in 2005.
- > The proposed modernisation and expansion involves the introduction of a covered housing system which reduces average stocking density within the covered housing system. A conceptual site layout plan is provided at **Appendix A**.
- > This report presents a Level 1 Odour Impact Assessment for the existing feedlot and the proposed modernised feedlot in accordance with:
  - Technical framework: Assessment and management of odour from stationary sources in NSW (Department of Environment and Conservation, 2006) ('Technical framework');
  - Technical notes: assessment and management of odour from stationary sources in NSW (Department of Environment and Conservation, 2006) ('Technical notes'); and
  - Local Government Air Quality Toolkit Beef cattle feedlots guidance note (Environment Protection Authority and Department of Climate Change, Energy, the Environment and Water, 2024) ('Guidance note').



#### REGULATORY FRAMEWORK

The Technical framework describes three levels of odour impact assessment. Level 1 is an initial screening technique using simple calculations. The assessment aims to indicate whether an existing or proposed development will likely result in offensive odour impacts based on the distance to potentially impacted areas, topography, vegetation and meteorology.

The Technical framework is accompanied by the Technical notes. Section 7 of the Technical notes describes the Level 1 assessment method for cattle feedlots.

The recently published *Local Government Air Quality Toolkit Beef cattle feedlots guidance note* (Environment Protection Authority and Department of Climate Change, Energy, the Environment and Water, 2024) (Guidance note) confirms that the Level 1 assessment can be applied to other large diffuse sources of odour, such as feedlots.

According to the Technical framework, if the Level 1 assessment demonstrates clear compliance, a Level 2 or Level 3 assessment is not required.

#### SITE DESCRIPTION

The existing feedlot is a Class 1 feedlot which accommodates 2,800 cattle on 30 feed pads.

The proposed modernisation and expansion will hold up to 1,700 additional cattle in a covered housing system. The covered housing system is consistent with Class 1 feedlot cleaning conditions. Class 1 describes the highest standard of design, operation, maintenance, pad management and cleaning frequency.

The Technical notes set out five composite site factors (S1-S5) which are used for the Level 1 odour assessment:

- > S1 Stocking density factor: standard cattle units (SCU) are used to calculate stocking density rather than total cattle numbers to allow for the different weight of cattle. The S1 values were calculated using linear regression based on the values from Table 7.2a (S1=25.6 for existing feedlot and 58.6 for proposed; **S1=38.12** for existing and proposed feedlot combined):
  - The cattle at the feedlot are estimated at 500 kg live weight, thus with the conversion factor of 0.87, the total SCUs of the existing feedlot is 2,436 and of the proposed covered feedlot 1,479. The total SCUs is 3,915.
  - The stocking density of the existing feedlot is 25.7 m<sup>2</sup>/head (EIS E.A Systems Pty Ltd, 2004). The stocking density of the proposed covered housing system is 7.5 m<sup>2</sup>/head.
  - S1 values for the new feedlot shed were calculated based on values from Table 7.2a. Due to the covered housing system being covered, no rainfall is expected. The table only provides values for areas with rainfall of more than 750 mm/year and those with less than 750 mm/year. The given values for both scenarios are equidistant from each other, therefore, S1 values for no rainfall were calculated by subtracting the difference between the values for >750 mm and <750 mm from those for areas with rainfall of less than 750mm/year (**Appendix B**).



- Linear regression was used to calculate the S1 values for the appropriate densities (25.7 m²/head and 7.5 m²/head).
- > S2 Receptor factor: the potential odour impact location is a small town (30-125 persons) approximately 2,215 m away from the odour source. The small town factor was adjusted to the actual number of persons living in Tullibigeal based on 2021 census data (Factor **\$2=0.86**, Table 7.3).
- > S3 Terrain factor: the site is flat with an average slope of 0.5% (**Factor S3**=1, Table 7.4).
- > S4 Vegetation factor: the vegetation of the site is predominately dry land crops with no existing tree cover (**Factor S4**=1, Table 7.5).
- > S5 Wind frequency factor: the wind conditions are normal meaning that winds are blowing towards the impact area between 5% and 60% of the time for all hours over a whole year (**Factor S5=1**, Table 7.6). Wind roses for Lake Cargelligo Airport (35km NW) for 9am and 3pm can be found in **Appendix C**.

#### **RECEPTORS**

- > One rural residence associated with the development within 2 km.
- > 34 residences (not associated with the development) within 2-2.5km, the closet is 2,215 m.
- > 53 residences (not associated with the development) within 2.5-5 km.

#### **ODOUR SOURCES**

The Guidance note identifies that potential odour sources at the feedlot include

- > The surface of holding pens;
- Accumulated manure in the feed pads and runs;
- > Feed storage and spillage;
- > Run-off / effluent collection and treatment (ponds);
- > Storage and processing of solids;
- > Land application of effluent and solids; and
- Disposal of carcasses.

#### ASSESSMENT METHODOLOGY

The Level 1 Odour Impact Assessment has been prepared using the Level 1 odour assessment methodology from Section 7 of the Technical notes. The existing feedlot and the proposed covered housing system were assessed as one in accordance with Section 7.5. 1. A weighted mean was calculated for the S1 factor for the combined case to account for the difference between the existing open feedlot and the proposed covered housing system.

The assessment is based on cattle numbers, separation distance to the closest sensitive receptor and the composite site factors described in the Site Description above.



The assessment is a five-step process:

- 1. Determine the feedlot class and the rainfall conditions (<750mm or >750mm rain/year).
- 2. In this case, the S1 factor was interpolated for a covered system with 0mm rain/year.
- 3. Calculate the number of standard cattle units (SCU) by multiplying the number of cattle by the SCU factor based on cattle live weight (see above).
- 4. Determine the composite site factors S1-S5 using Tables 7.2 to 7.6 of the Technical notes and calculate the S-Factor by multiplying S1 to S5 (see above).
- 5. Calculate the minimum distance required to the closest sensitive receptor and/or the maximum allowable number of cattle.

The allowable number of standard cattle units (SCU) is calculated by the following equation:

 $N = (D \div S)^2$ , where N is the number of SCUs, D is the distance to the closest sensitive receptor and S is the composite S-Factor.

Alternatively, the minimum separation distance can be calculated based on the cattle size using the following equation:  $D = \sqrt{N} \times S$ .

#### **RESULTS**

**Table 1** shows the results of the combined case (existing feedlot and proposed covered housing) with 4,500 cattle or 3,915 SCUs for a feedlot class 1 in rainfall conditions of <750mm/year and 0mm/year.

**Table 1: Level 1 Odour Impact Assessment** 

SCU	<b>S1</b>	S2	<b>S3</b>	<b>S4</b>	<b>S</b> 5	Stocking density	S	Distance to closest receptor D (m)	Minimum Distance Required (by calculation) (m)	Maximum number of SCUs (by calculation)
3915	38.12	0.86	1	1	1	25.7 m <sup>2</sup> /SCU and 7.5 m <sup>2</sup> /SCU	32.79	2,215	2,051	4,564

A conceptual drawing of the proposed development and sensitive receptors is provided in **Appendix B**.

#### **DISCUSSION AND CONCLUSION**

The Level 1 Odour Impact Assessment shows that for the combined case (open pens with rainfall conditions of <750mm/year and covered housing with 0mm rainfall), the minimum distance required by calculation is 2,051 m which is less than the actual distance to the closest sensitive receptor (2,215).



m). The maximum allowable number of SCUs is 4,564 which is equivalent to 5,246 head of cattle. This is well above the proposed maximum capacity of 4,500 cattle.

On this basis, it is considered that Condition L5.1 of EPL 12319 and Section 129 of the Protection of the Environment Operations Act 1997 will continue to provide adequate restriction on potential off-site impacts associated with odour.

Further, it is considered unnecessary to undertake a Level 2 or Level 3 assessment in this instance.





# **Appendix A – Conceptual Site Layout Plan**





#### FRAMPTON FLAT PTY LTD

Frampton Feedlot

**Feedlot Stormwater and Effluent Management** 



Open Feedlot Pens

Cattle Lanes

Effluent Ponds and Drains

Feed Lanes

Feedmill Area Holding Pond

Handling Facility

Covered Housing System

Stormwater

Water tank

Carcass Pit



# **Appendix B – Sensitive Receptors**



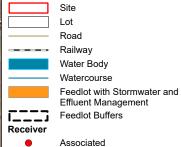




#### FRAMPTON FLAT PTY LTD

Frampton Feedlot

**Odour Assessment** 



Non-Associated



# **Appendix C – Wind Roses**



#### Rose of Wind direction versus Wind speed in km/h (02 Jan 1965 to 09 Aug 2024)

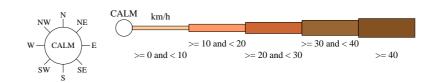
Custom times selected, refer to attached note for details

#### LAKE CARGELLIGO AIRPORT

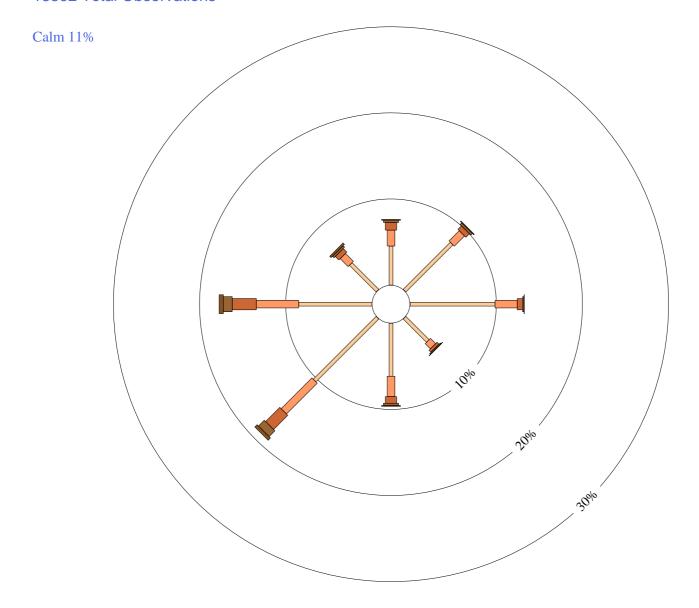
Site No: 075039 • Opened Jan 1881 • Still Open • Latitude: -33.2832° • Longitude: 146.3706° • Elevation 169m

An asterisk (\*) indicates that calm is less than 0.5%.

Other important info about this analysis is available in the accompanying notes.



#### 3 pm 13392 Total Observations



#### Rose of Wind direction versus Wind speed in km/h (02 Jan 1965 to 09 Aug 2024)

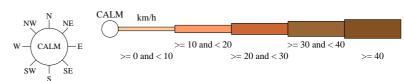
Custom times selected, refer to attached note for details

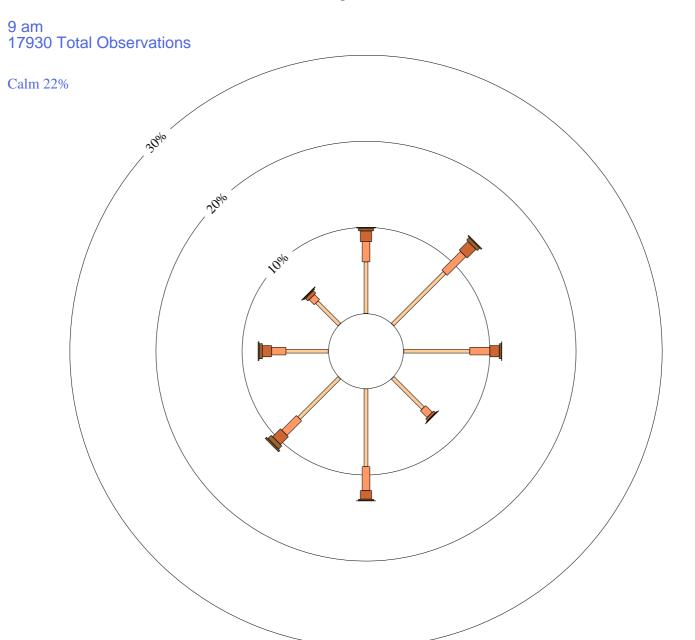
#### LAKE CARGELLIGO AIRPORT

Site No: 075039 • Opened Jan 1881 • Still Open • Latitude: -33.2832° • Longitude: 146.3706° • Elevation 169m

An asterisk (\*) indicates that calm is less than 0.5%.

Other important info about this analysis is available in the accompanying notes.





# APPENDIX E NFAS ACCREDITATION



# **NFAS Audit**

AUS-MEAT Limited



1/333 Queensport Road North, Murarrie, QLD 4173 Tel: 07 3361 9200 Fax: 07 3361 9222

## **Company Details**

**Company Name:** The DJ Frankel Trust

PIC: NA140398 Postal Address:

**Postal Town:** Accreditation No: 324 **TULLIBIGEAL** 

Accredited Capacity: 2800 Postal State: **NSW** Postal Postcode: 2669

#### Audit Details

6.00 Auditor: Neil Mcintosh **Duration (hours): Auditor Mob:** +61429151606 **Corrective Actions Raised:** 0 **Audit Date:** 26-Feb-2025 **Recommended Category:** Α

## **Audit Summary**

#### **ENTRY MEETING:**

A brief entry meeting was held with the Management Representative Darren Frankel to discuss the audit process and confirm the audit objectives, scope and criteria. As the Management Representative, Darren Frankel provided the necessary authorisation to proceed with the audit.

#### **AUDIT OBJECTIVES:**

This audit is an evaluation of the Feedlot requirements for the accredited NFAS Feedlot to ensure compliance with the NFAS Rules and Standards and any other applicable licensing requirements. During the audit, areas for potential improvement within your management system may be identified. **AUDIT SCOPE:** 

This audit, as agreed, will cover sections of the feedlot quality management system conducted by sampling the activities related to cattle feeding within the feedlot, documentation, and other approved practices. The scope may be extended at the discretion of the auditor.

#### **AUDIT CRITERIA:**

This audit will evaluate the capability of the feedlot activities to ensure compliance with the following:

- a) NFAS Rules and Standards Dec 2024
- b) Environmental and Government Licensing approval conditions (where applicable) **AUDIT FINDINGS:**

Audit findings are summarised in the various sections of this report and discussed at the Exit Meeting with the Management Representative.

#### **AUDIT CONCLUSION:**

The sections of the Quality Management Systems audited today have adequately demonstrated the ability to conform to the audit criteria. Conformity Assessment against the NFAS Rules and Standards and the management system's effectiveness allows the Auditor to recommend continuation of the NFAS accreditation.

Audit duration of 6 hours includes time on site, feedlot inspection, information gathering and additional report writing time off-site as discussed with the Feedlot representative Darren Frankel

\*Admin, please be advised that all contact information is correct and has been confirmed by the representative.

Print Date: 2/04/2025 PIC: NA140398 Page 1 of 16

<sup>\*\*</sup>Admin please note there are no updates to the Feedlot License Approved Capacity

