

A feedlot is subset of the broader parent term:

intensive livestock agriculture means the keeping or breeding, for commercial purposes, of cattle, poultry, pigs, goats, horses, sheep or other livestock, and includes any of the following—

- (a) dairies (restricted),
- (b) feedlots,
- (c) pig farms,
- (d) poultry farms,

but does not include extensive agriculture, aquaculture or the operation of facilities for drought or similar emergency relief.

1.6 Consent authority

The consent authority for the purposes of this Plan is the Council.

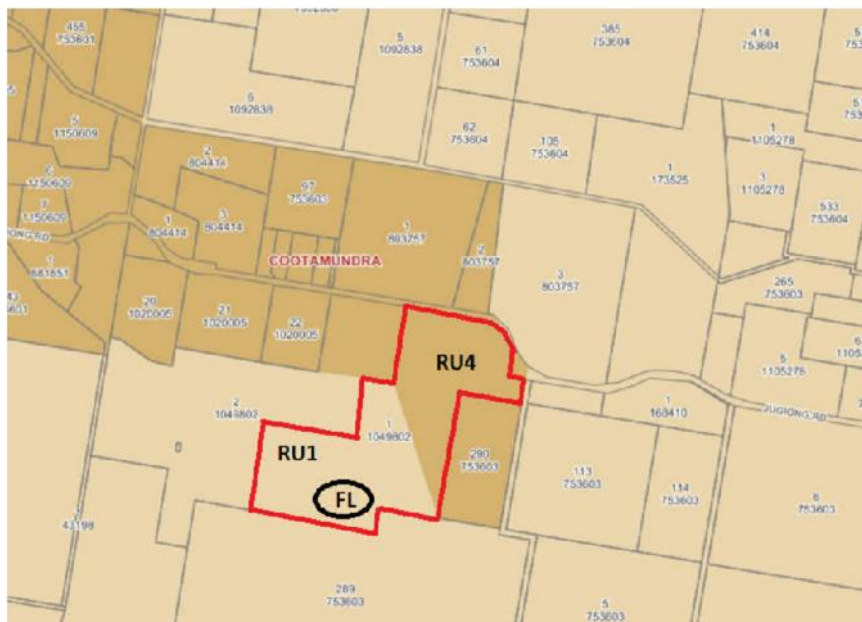
1.9A Suspension of covenants, agreements and instruments

There are no covenants, agreements, easements or restrictions on the property that affect this development.

2.1 Land use zones

The site is zoned part RU1 Primary Production (south-west half of the site) and part RU4 Primary Production Small Lots (north-east half of the site), as shown on the following extract from the zoning map. The feedlot is proposed to be located in that section of the site that is zoned RU1 Primary production, and is permitted in the zone with consent.

Figure 5 – Zoning map extract (LZN_005)



2.3 Zone objectives

Under this clause Council must have regard to the objectives of the zone when determining the development. The proposed development, whilst not actively working towards every objective, is considered to be consistent with the following objectives of the RU1 Primary Production zone:

- *to encourage sustainable primary industry production by maintaining and enhancing the natural resource base* – the SEE and this report will demonstrate that the development is capable of being sustainable, with the outputs from the development being adequately managed and used elsewhere on the property as an input to other farming activities, without having an adverse impact on the environment;
- *to encourage diversity in primary industry enterprises and systems appropriate for the area* – the development demonstrates diversity in a traditional farming system, that is a size that is considered appropriate for the site and area, taking into account adjacent land uses and zones. It is also compliant with the following Meat and Livestock Australia (MLA) industry publications:
 - the *National Guidelines for Beef Cattle Feedlots in Australia* (the National Guidelines),
 - the *National Beef Cattle Feedlot Environmental Code of Practice* (the Environmental Code of Practice),
 - the *Beef cattle feedlots: design and construction* (the Design Guidelines), and
 - the *Beef Cattle Feedlots: Waste Management and Utilisation* (the Waste Guidelines);
- *to minimise the fragmentation and alienation of resource lands* – this development does not fragment or alienate resource lands. Surrounding rural land can continue to be used for complementary agricultural purposes, including the adjacent RU4 Primary Production Small Lots zone, which permits a variety of agricultural land uses including extensive agriculture, aquaculture and intensive plant agriculture;
- *to minimise conflict between land uses within this zone and land uses within adjoining zones* – the development has been strategically located on the site, to ensure that it is as far away as possible from the adjacent RU4 Primary Production Small Lots zone, in order to minimise any potential conflicts, an issue that is discussed throughout this report;
- *to protect and conserve deposits of extractive materials and allow their extraction by limited development where appropriate* – not relevant to the proposal,
- *to protect and conserve native and other vegetation in order to preserve scenic amenity and to minimise land degradation* – satisfied as the development proposes no removal of native vegetation.

The development is not inconsistent the remaining objectives of the zone, which are just not relevant to the proposal.

2.7 Demolition requires development consent

This development does not involve demolition work, *per se*, but will involve the relocation of some of the existing fencing presently being used for the containment of cattle, to the new feedlot site. Minimal impact is expected as a result of this activity.

5.10 Heritage conservation

There are no items of European heritage identified on either the State Heritage Register or in the LEP as being present on-site, and the site is not located in a Heritage Conservation Area (HCA). A search of the Aboriginal Heritage Information Management System (AHIMS) database shows that no Aboriginal sites have been recorded, and no Aboriginal places have been declared, within 200 metres of the site. Two (2) Aboriginal sites have been recorded within 1 km of the site, which means that whilst work is carried out a person should be cognisant that there may be unexpected

finds, but that the likelihood of this occurring is relatively low due to the highly disturbed nature of the site. An unexpected finds condition will be imposed, if consent is granted.

5.18 Intensive livestock agriculture

This clause applies if development for the purpose of intensive livestock agriculture is permitted with consent under this Plan, as it is in this instance, and the objectives of this clause are to:

- (a) *to ensure appropriate environmental assessment of development for the purpose of intensive livestock agriculture that is permitted with consent under this Plan, and*
- (b) *to provide for certain capacity thresholds below which development consent is not required for that development subject to certain restrictions as to location.*

As the development is for more than 50 head of cattle, it does not fall into the category of being permitted without development consent [subclause (5)], and accordingly, development consent is required.

This clause also states that in determining whether or not to grant development consent for the purpose of intensive livestock agriculture, the consent authority must take the following matters (in italics) 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,*

Staff are of the opinion that the information contained in the statement of environmental effects (SEE) is adequate. It clearly identifies the existing environment, the likely impacts of the feedlot, and the measures proposed to minimise those impacts. The SEE has been prepared, and the development based on, the recognised industry specific guidelines, as well as the various State Government guidelines, identified in the NSW Department of Planning, Industry and Environment's *Planning Guidelines - Intensive Livestock Agriculture Development*. A number of other relevant publications have also been referenced and used in the preparation of the SEE, lending credibility to the SEE.

In assessing this development application, it has become apparent that the author of the SEE has taken a very conservative approach to design of the feedlot, and the identification of the likely impacts, and has generally overstated the mitigation measures.

- (b) *the potential for odours to adversely impact on the amenity of residences or other land uses within the vicinity of the site,*

Odour introduction

Odour was an issue that was raised in each of the five (5) submissions, with a variety of consequences stated as: people being physically ill from the smell, having to rewash clothes hung outside, inability to go outside, odour coming inside though air conditioners and the effects of katabatic drift.

The *Local Government Air Quality Toolkit for Beef Cattle Feedlots*, developed by the EPA, identifies that odours at cattle feedlots arise from several possible odour sources, some of which are constant static sources (e.g from the pens), and others that are transitory odour events (e.g. spreading or irrigating waste), and include:

- the surface of the holding pens (which is the biggest source of odour),
- feed storage,

- run-off collection and treatment (ponds),
- storage and processing of solids,
- land application of effluent and solids, and
- disposal of carcasses.

Further to the issue of odour, adequate separation of the feedlot from receptors, is the best mitigating factor to prevent odour impacting adversely on adjacent land (although good site management is still critical to managing odour).

The issue of odour has been addressed in the SEE, which identifies the issue of separation and the various sources, as well as the practices to be employed to minimise the likelihood of odour becoming a nuisance. These are discussed below, with respect to the numerous guidelines that address odour at cattle feedlots.

Separation and odour modelling

There are two (2) almost identical methods used for determining acceptable separation distances for cattle feedlots, one specific to odour and the other more broadly based on amenity in general. One main difference is that one uses SCUs and the other the number of cattle. These are found in:

- the EPA publication *Technical Notes: Assessment and Management of Odour from Stationary Sources in NSW*, and
- the separation distance guidelines in the *National Guidelines for Beef Cattle Feedlots in Australia*.

The EPA methodology suggests a three tiered approach, where successive tiers of analysis must be undertaken, if the assessment of the previous tier indicates a likely odour impact. In the first instance a Level 1 odour assessment is carried out using a series of S-Factors. This assessment determines whether the proposed management practices, in combination with the distance to the nearest sensitive receptor, the topography and meteorology of the site, will result in offensive odour impacts. A Level 1 procedure specifically takes into account the following factors:

- type of odour,
- quantity of odour emissions,
- proposed management practices,
- proposed level of emission control,
- local topography (including the effects of katabatic drift),
- the presence of buildings,
- worst case meteorology,
- possibility of cumulative impacts.

If an applicant of a cattle feedlot can demonstrate a clear 'pass' at Level 1 odour impact assessment, there is no need to undertake Level 2 or 3 assessments (which involve varying complexities of odour modelling), regardless of the size of the development, unless there are special risk factors. The EPA guidelines state that the result of a Level 1 impact assessment would be more conservative (that is, would overestimate the impact)".

The *National Guidelines for Beef Cattle Feedlots in Australia* methodology, works on the same principle as that of the EPA's methodology, using similar S-Factors, and a requirement for further modelling if the basis assessment indicates issues.

The SEE contains an assessment under both of the above methodologies, which indicated that the odour would not be a significant issue at nearby receptors, and therefore odour

modelling and further assessment was not undertaken. Council Staff have reviewed the S-Factor calculations for both methods, and can confirm that the calculations and separation distances outlined in the SEE using the National Guidelines are correct. Upon review of the S-Factors used in the EPA methodology, Staff have reassessed the separation distance using some different S-Factors, resulting in some minor variations, but which are still within acceptable limits. The results of the two (2) assessments are summarised in the following table, and illustrated in the subsequent figure:

Table 2 - Separation distances

Receptor	Calculated Separation Distance		Approximate Available Distance
	National Guidelines	NSW Technical Notes	
Cootamundra	1411 metres	1834 metres	5080 metres
House 3 NNW	294 metres	458 metres	774 metres
House 1 N	353 metres	458 metres	800 metres
Rural Res N-NNW	823 metres	458 metres	1040 metres
House 2 NNE	294 metres	320 metres	1135 metres
House 8 E	294 metres	343 metres	1500 metres
House SW	294 metres	458 metres	2120 metres

Figure 6 – Location of receptors



Therefore, the proposed new site of the feedlot is suitably separated from receptors, with comfortable buffers available, under both methodologies.

Surface of holding pens

Measures which can be adopted to minimise odour emissions from pens include controlling moisture content, by:

- pen design, in particular:
 - slope – various guidelines recommend a slope of between 2% to 5%, with 3.5% identified as being optimal. The SEE proposes a slope of 4%, which is within the acceptable range, and which will allow the pens to drain well, but not result in

- excessive sediment run in heavy storms. Given the importance of this issue, this will form the basis of a specific condition;
- surface type – the Design Guidelines indicate the surface of the pens can be gravel or clay (lain over a suitable sub-base, discussed elsewhere in this report), or a mixture of both, in order to obtain a durable surface. The information supplied in relation to this feedlot, is that the surface will be a gravelly-clay finish, on top of an impervious subbase,
 - direction of run-off – the pens will drain generally south to north, towards the bottom of the pens and the proposed drainage system, and away from the feed bunks which are located at the higher end of the pens. This also avoids one pen draining into and through another pen. These design principles are consistent with the Design Guidelines;
 - the location and design of feeders– The Design Guidelines, indicate that feed bunks should always be located along the fence line, never within the pen, so that they can be filled during all weather conditions. They should be located along the higher end of the pen with drainage away from the bunk on both the feed road and pen sides. This minimises boggy conditions on the pen side of the bunk and keeps the feed road firm and accessible, and which is how the proposed feedlot has been designed. In addition, the SEE indicates that a 2.5 metre wide concrete apron will be installed behind the feed bunk, to minimise pad damage and the associated maintenance requirement of this high-usage part of the pen;
 - the location and design of water troughs – The SEE states that the water troughs will be situated at the centre of the bottom fence line of each pen. This separates the water troughs from the feed bunks, minimising the transfer of grain on cattle mouths to the trough where it sours the water. Situating the troughs at the bottom of the pen also minimises wetting of the pad during trough cleaning and if there are spills. A concrete apron 2.5 m wide will surrounded each water trough to protect the pad in this high usage area. These proposals are consistent with the Design Guidelines;
 - pen stocking density - The Australian Animal Welfare Standards and Guidelines for Cattle states “a person in charge must ensure a minimum area of 9 m² per Standard Cattle Unit for cattle held in external pens”. On the other hand, the Environmental Code of Practice recommends a maximum stocking area of 25 m² per Standard Cattle Unit (SCU). It also states that stocking areas lower than 20 m² per SCU can encourage increased pen dust loads and require higher capacity for sedimentation and holding ponds. Accordingly, the SEE states that “the cattle will be accommodated in four pens. Each pen will hold 150 SCU, providing a stocking density of 20 m²/SCU”, and therefore is compliant with the industry guidelines;
 - depth of manure and pad cleaning frequency – The SEE states that the pens will be regularly and frequently cleaned, and manure will not be allowed to accumulate beyond a depth of 50 mm. The cleaning will occur at least every 13 weeks for pens that are in use, and care will be taken to remove manure from under fence lines and around feed and water bunks, and will be moist, but not wet when removed. This is consistent with the Waste Guidelines, and although the Waste Guidelines do allow temporary stockpiling of waste in the pens, the SEE specifically states that this will not occur. Furthermore, the cleaning of the pens should occur under appropriate weather conditions, optimally when the wind is blowing from the north or north-east, or not at all.

It is considered that the pens have been designed to minimise odours and if operated in accordance with the industry guidelines and the commitments in the SEE, the likelihood of adverse impacts from odour due to the pens, will be minimised.

Feed storage

Measures which can be adopted to minimise odour emissions from feed storage facilities include: controlling moisture content, aeration and controlling temperature. The SEE indicates that the feed will need to be delivered to silos at the proposed feedlot, and so the bulk storage of feed is unlikely to create an odour event, as a result of moisture or temperature. The SEE does identify that any spilt or waste feed will be promptly cleaned up, to avoid the potential for nuisance. Furthermore, as the feed bunks and water troughs are at opposite ends of the pens, this reduces the likelihood of the feed becoming wet, and producing odours.

The Design Guideline identifies a large number of different designs for feed bunks, and the SEE does not detail exactly which design will be used, and is not considered critical to the assessment of this application, but does recommend that the feed bunks should have drain holes or slots at intervals along the length of the trough to drain rain water, which will be conditioned accordingly.

Based on the above assessment, it is not considered that there will be an odour nuisance associated with the handling and storage of feed.

Run-off collection and treatment (stormwater, drains, basins and ponds)

After a storm event, feedlot effluent is predominantly composed of run-off, which picks up and transports some manure into the effluent holding ponds. Feedlot drains collect run-off from areas within a feedlot (predominantly pen surfaces, roads and manure stockpile areas) and transport it to the effluent treatment system. Typically, effluent treatment systems at feedlots comprise a sedimentation basin and holding pond, which is what is proposed in this instance.

Measures to manage odours from treatment and handling contaminated stormwater run-off include:

- minimising the amount of water to be treated, by diverting clean surface waters around the feedlot, to avoid contaminating it and having to treat it. The SEE includes a proposal to construct a clean water diversion bank along the top-side (to the south and south-east) of the pens and effluent treatment system, consistent with National Guidelines;
- drain design – as per the Design Guidelines, a drain slope of 0.5% to 1.5% is recommended, to ensure there is sufficient slope to avoid build-up of manure in the drain, but also to prevent scouring of the drain. In addition, the design of the drain is to be based on a design storm event with an average recurrence interval (ARI) of 20 years, and flow velocities in the drain during this event should be greater than 0.5 m/s, but at the same time be non-scouring. The SEE demonstrates that the design of the drain satisfies these standards;
- drains should be kept free of manure, and this will be conditioned accordingly;
- ensuring the sedimentation basin is appropriately designed and maintained, including the regular removal of solids. A sedimentation basin is typically a wide, shallow storage area, having a maximum water ponding depth less than one (1) metre. They are designed to drain completely (down to bed level) following a runoff event. The bed of the basin should slope towards the control outlet at a gradient of at least 0.1%. Solids are deposited in relatively thin layers over a large area, facilitating rapid drying after the basin has drained of liquid material, thereby reducing the intensity and duration of sediment system odour emissions. The dried solids can then be removed at the earliest possible opportunity. The SEE demonstrates the required capacity of the sedimentation basin based on the Design Guidelines, but has not provided any detailed design plans,

and this will be required as a condition of consent, to ensure that it meets the required standards, and functions with minimal odour generation. In addition, conditions will be imposed to regulate the maintenance of the sedimentation basin;

- ensuring the effluent holding pond is appropriately designed and maintained - A holding pond is located at the lower end of the controlled drainage area, immediately below the sedimentation basin. It is designed to capture and store the runoff from the controlled drainage area until it can be sustainably utilised. Stable, properly functioning holding ponds do not produce a lot of odour. Producing minimal odour whilst maximising the hydraulic efficiency of the holding pond system is an important design consideration. The factors which influence holding pond odour emissions include frequency and volume of runoff events, the elapsed time since the last major inflow, the relative volume of fresh inflow to the volume of effluent already present in the pond, pond chemistry, pond microbiology and surface area. The SEE demonstrates what the capacity of the effluent holding pond needs to be based on as per the Design Guidelines, but has not provided the detailed design plans, and this will be required as a condition of consent, to ensure that it meets the required standards, and functions with minimal odour generation. In addition, conditions will be imposed to regulate the maintenance of the effluent holding pond.

Storage of solids

Manure removed from the pens and the sedimentation basin, will be held in the designated manure storage area located immediately below the pens, adjacent the sedimentation basin and the effluent holding pond. Measures to reduce odours emanating from the storage area, include:

- maintaining a dry surface and preventing waterlogging of materials – this can be achieved by ensuring that the surface drains at an appropriate grade into the sedimentation basin,
- solid by-products to be formed into triangular windrow piles of certain heights and widths, to promote water-shedding and prevent the manure from becoming too wet, which can result in significant odour. It is proposed that that the manure will be stored in this fashion, and aged for approximately six (6) months, prior to use on-site, or disposal off-site,
- windrows should be established on a low-permeability, slightly sloping surface – the SEE indicates the storage pad will be constructed to the same impervious standard as the pens and effluent structures,
- avoid stockpiling wet manure as this produces very strong odours – the SEE indicates that the pens will be cleaned out when the manure is moist but not wet, which is consistent with the Waste Guidelines.

Land application of effluent and solids

The development involves the application of both liquid and solid waste to the property, but also identifies that most of the solid waste shall be removed from site and utilised by other farms. In order to reduce odour nuisance to neighbours, the Waste Guidelines recommends spreading manure or irrigating effluent:

- frequently to minimise events with large odour generation,
- evenly,
- in the morning when the air is warming rather than late in the afternoon,
- as soon as possible harrow, disc or chisel plough to incorporate manure into the soil,
- spray effluent as close to the ground as possible, and avoid high-pressure guns
- but do not spread (or irrigate)
 - if the wind is blowing towards a neighbour

- if rain or heavy cloud are expected – use weather forecasts
- just before weekends or public holidays, particularly if close to a public area
- very dry manure that will result in dust being blown towards neighbours.

The SEE indicates that the spreading and irrigation of effluent will be consistent with these guidelines, which will be reinforced as conditions of consent.

In addition, conditions will also be imposed regarding effluent application buffer zones.

Disposal of carcasses

Questions were raised about how dead animals are disposed of in some of the submission. Carcasses can be treated by composting, burial or rendering, and the SEE identifies that they will be composted in a windrow in the manure storage area. Carcasses are readily composted, but the volume of material used to cover the carcass is important for controlling odour emissions, and the amount of cover required depends on the soil type. Whilst the SEE is generally in accordance with the Waste Guidelines, a condition will be imposed, to ensure that the composting is consistent with the Waste Guidelines, in terms of depth of base and cover material and length of composting. This should ensure that no odour nuisance results.

The SEE also discusses actions to be taken in the unusual event of a disease outbreak or mass mortalities. It identifies that veterinary advice would be sought, and any suspected disease outbreak, would be reported to the Emergency Animal Diseases Hotline and to Council. In the meantime, actions would be taken to isolate suspect livestock and secure the feedlot perimeter. Movement of people, machinery and livestock from the property would also be restricted. A history of all livestock, personnel and vehicle movements to the property within the previous seven days would be compiled. In the event of mass mortalities, NSW EPA would be contacted, and mortalities disposal would be under the direction of NSW EPA. The Animal Health Australia (2010) AUSVETPLAN Enterprise Manual – Beef Cattle Feedlots would be used as a reference for managing the situation.

Odour conclusion

From the submissions, odour is reported to be an issue with the current feedlot. However, this feedlot was not established using best-practice, and is poorly located and designed, and is possibly operated, contrary to the industry standards.

There will be a certain amount of odour generated by the feedlot and the activities associated with it. However, given the controls outlined in the SEE to be implemented, the separation distances to the new location, the topography, and the subsequent conditions proposed to be imposed, it is considered that any adverse impact associated with odour will be minimal. It is reasonably expected that many of the issues associated with odour presently experienced from the current operation, will be addressed by this new proposal. Furthermore, the owner/operator will be required provide the adjacent neighbours with a phone number to report odour complaints directly to the operators, to enable them to be investigated immediately.

(c) the potential for the pollution of surface water and ground water,

Ground and surface waters introduction

Three of the five (5) submissions raised concern with the impact on surface and groundwater, in particular the impact on the Muttama Creek catchment. There are a

number of drainage lines in the locality (see following figure), including two (2) drainage lines on the property, which drain to the north. The site does not drain into the Cullinga Creek catchment to the south, but ultimately would drain into Muttama Creek, 4 km downstream.

Figure 7 - Drainage lines (source NSW Department of Industry)



Some of the possible environmental impacts associated with the pollution of ground and surface water, include:

- nitrogen and phosphorus in manure can have significant negative impacts on waterway health, with excessive nutrients causing a deterioration in water quality with algal blooms, less dissolved oxygen and increased turbidity,
- manure also consists of bio-degradable organic compounds that can reduce the amount of available oxygen for aquatic animals,
- the decomposition of animal waste in the absence of oxygen can also produce gases such as methane, carbon dioxide and hydrogen sulphide,
- manure and other elements mixed with it (e.g spilled feed, hair, etc), result in elevated levels of solids when discharged to waterways, which decrease the clarity of the water, hindering the functioning of aquatic plants and animals,
- micro-organisms, including bacteria, viruses, protozoa, and parasites are found in livestock manure, many of these are associated with risks to human and animal health,
- undigested feed that passes through animals can result in manure with significant concentrations of sodium and potassium and other soluble salts, which can contribute to deterioration in soil structure, reduced permeability, reduced crop yields and contaminated groundwater,
- changes in salinity can displace resident aquatic species and degrade drinking water quality,
- manure also contains trace elements such as arsenic and cadmium which can be of environmental concern in elevated concentrations,
- unrestricted application of manures and discharge to waterways may result in high cumulative metal loading rates with potential impacts on human health and the environment,
- where antibiotic use is widespread, there are concerns that strains of antibiotic resistant pathogens are emerging in the receiving aquatic environment,
- the use of pesticides (as fly suppressants) and hormones may also be constituents of animal wastes, and have been linked with reduced fertility, mutations, and death in aquatic fauna.

There are several possible sources of surface and groundwater pollution in a cattle feedlot, and, any or all of these, if not designed, constructed and managed properly can lead to the pollution ground or surface waters. These sources include:

- the pens,
- the drains,
- the effluent holding structures,
- the solid waste storage area, and
- the application of waste to land.

The Environmental Code of Practice, the Waste Guidelines and the Design Guidelines provide guidance in this regard. This advice is consistent with the *Effluent reuse management guidelines (2010)*, prepared by the then Department of Environment and Climate Change and Water NSW, and the *Use of effluent by irrigation guidelines (2004)*, prepared by the then Department of Environment and Conservation, both of which are still current reference documents.

Stormwater runoff

Stormwater runoff from the controlled drainage area of a feedlot (that area in which the pens, drains, effluent holding structures and solids storage area are located), is normally characterised by high concentrations of organic matter. Even when it has passed through a sedimentation system, it still contains substantial levels of organic matter, nutrients and salts. This runoff should not be allowed to flow uncontrolled into the external environment and should be captured by the holding pond.

The effluent management system proposed by this development will achieve this, with all runoff from the cattle feedlot complex, to be directed through the sedimentation basin, to the effluent holding pond.

As discussed previously, minimising the amount of water to be treated, will help in the management of stormwater, and as indicated the SEE includes a proposal to construct a clean water diversion bank along the top-side (to the south and south-east) of the pens and effluent treatment system, consistent with National Guidelines. As the complex is located close to a ridge, the amount of run-on water is minimal, which will assist in managing it in an appropriate manner.

The pens

As discussed previously, the pens will be constructed at an appropriate gradient, to ensure quick drainage of rainfall, without runoff scouring excessive amounts of manure from the pen surface. The pens will discharge into the drain running along the bottom of the pens. This will ensure that all runoff from the pens is captured in the sedimentation basin and then the effluent holding pond, and will not discharge to any surface waters.

If there is a high potential for contamination of underground water resources because of leaching of nutrients through permeable, underlying rock strata, The Design Guidelines states that an impermeable barrier will be needed between the pens and the groundwater. Whilst the SEE has not provided an assessment in this regard, it does commit to providing a surface, with a maximum permeability of 1×10^{-9} m/s, in accordance with the Design Guidelines. This will be reinforced on the conditions of consent, along with a requirement to have the works carried out, and certified by, a suitably qualified professional or engineer, to confirm the permeability was achieved. This should ensure that the likelihood of groundwater being contaminated from the use of the pens is minimal.

The drain

Under the Design Guidelines, the mandatory requirements for the drain is that it be designed so that the drain can safely carry the peak flow rates resulting from a design storm event with an average recurrence interval (ARI) of 20 years, and meet certain other design standards, relating to the catchment area and the flow velocities. The SEE has provided calculations demonstrating that the drain will be designed and constructed to these standards, which should minimise overtopping during rainfall events, thereby reducing the likelihood of discharge to any surface waters. Conditions will be imposed requiring the drain to be kept free of manure build-up, to ensure the operational capacity of the drain is not reduced.

The Design Guidelines also state that the drain should be underlain by a thickness of at least 300 mm of clay or other suitable compacted soil, or a synthetic liner able to provide a design permeability of $<1 \times 10^{-9}$ m/s, which the SEE commits to, and again will be conditioned to demonstrate that this occurs, and be maintained as such. This should minimise the leaching of any nutrients to the soil and in turn the groundwater, or direct discharges to groundwater.

The effluent holding structures

The effluent holding structures include the sedimentation basin and the effluent holding pond, and the Design Guidelines have mandatory requirements relating to the design, construction and maintenance of these structures, to ensure that the likelihood of these contributing to the pollution of ground and surface waters is minimised.

Sedimentation basin

Among other things, sedimentation basins are designed to ensure that sediment and other solids are caught after a storm event, so that minimal solids make their way to the effluent holding pond, in order to maintain the operational capacity of the pond, and reduce the probability of the effluent holding pond overtopping.

In order to minimise the risk of the sedimentation polluting surface waters, the Design Guidelines recommends that the sedimentation basin be designed to cater for the peak flow rate from a design storm having an ARI of 1 in 20 years, when applying different runoff coefficients for the different areas in the catchment drainage area (i.e there will be greater runoff from hard surfaces as opposite to grassed areas). The Design Guidelines also stipulates:

- the maximum flow velocity,
- a control weir to regulate outflow from the sedimentation basin to the effluent holding pond, capable of discharging the peak flow from a 50-year ARI design storm without the system embankment overtopping,
- a minimum freeboard of 0.9 m (the vertical height between the crest of a holding pond embankment and the full supply level), and
- be free draining down to bed level, and have a bed slope of at least 0.1% towards the control outlet weir to facilitate drainage.

The SEE has provided details which confirms that the sedimentation basin will be designed and constructed in accordance with most of these standard, but is silent on the issue of freeboard. Therefore, conditions will be imposed reinforcing capacity of the basin, including the required freeboard. Conditions will also be imposed regarding the ongoing maintenance of the sedimentation basin, such as removal of sediment during dry periods, as well as being

cleaned as soon as possible after significant material build-up. This should ensure that the operational capacity of the sedimentation basin is maintained, in order to reduce the chance of any discharge to surface waters.

Just as with the pens and the drain, the sedimentation basin also needs to be constructed to achieve the required permeability of $<1 \times 10^{-9}$ m/s, to avoid the risk of polluting groundwater. The SEE commits to this, and appropriate conditions will be imposed to ensure that this is achieved.

Effluent holding pond

Effluent holding ponds are designed to:

- store contaminated stormwater until it can be either applied to land or evaporated,
- be large enough to temporarily store effluent from major storms and/or extended wet periods which limit irrigation or evaporation of effluent,
- have sufficient capacity for safe storage of the captured wastewater, limiting overtopping to an acceptable and approved frequency, and
- be structurally stable, thereby limiting the probability of embankment failure with uncontrolled release of large quantities of effluent and resultant surface water and/or groundwater contamination.

The Design Guidelines provide mandatory and recommended requirements for the design, construction and operation of the effluent holding pond, to ensure that it does not result in the pollution of ground and surface waters.

Capacity is important in minimising the likelihood of polluting surface waters, and the Design Guidelines provide several different methods for calculating the size of the effluent holding pond, including modelling based on monthly data, a design based on the 20-year ARI 24-hour design storm, a daily time-step hydrology model, and also allows for other forms of modelling. The SEE has used both the storm event modelling and the monthly water balance method, to calculate the required volume of the effluent holding pond, as being 1567 m² and 3619 m³, respectively. The variation is based on a greater allowance for wet weather storage using the monthly water balance method, which is the more accepted model, and is more conservative, meaning there is a greater level of safety, and less chance of overtopping. On that basis the SEE proposes a volumetric capacity of 3650 m³, in excess of what is required.

Again, the Design Guidelines recommend minimum freeboard of 0.9 metres should be provided in the effluent holding pond, and again, is silent on the issue of freeboard, so it will be conditioned accordingly. Operational and/or management conditions will also be imposed regarding irrigation from the effluent holding pond, to ensure that there is ample room in the pond, at the times capacity is mostly likely required.

Just as with the pens, the drain and the sedimentation basin, the effluent holding pond also needs to be constructed to achieve the required permeability of $<1 \times 10^{-9}$ m/s, to avoid the risk of polluting groundwater. The SEE commits to this, and appropriate conditions will be imposed to ensure that this is achieved.

In terms of the impact on Muttama Creek, provided the holding pond is designed to an appropriate size, and the capacity of the dam is managed though irrigation at appropriate times, the chances of any discharges to surface waters is considered minimal. In the event that the holding pond overtops, that is most likely during a significant storm event, which means that any water from the holding dam, would be highly diluted by the time it travelled 4 km to the Muttama Creek, and the impacts would be negligible.

The solid waste storage area

Ensuring that the solid waste storage area drains to the sedimentation basin, and that the pad is constructed to the same impervious standards as the rest of the complex (pens, drain, sedimentation basin and effluent holding pond), will effectively ensure that the risk of polluting either ground or surface waters is reduced to an acceptable level. The SEE states that this will be the case, and will be reinforced in conditions of consent.

The application of waste to land

This is perhaps one of the highest risks to the pollution of both ground and surface waters, through the run-off of effluent or solid waste into watercourses, and through the leaching of nutrients and other chemical compounds into the groundwater. Solid waste and effluent from a feedlot, can be valuable sources of nutrients and organic matter for improving soil fertility, structure, waterholding capacity and crop or pasture production. However careful management is needed to gain the most benefit from their utilisation while protecting the environment and preventing impacts to neighbours.

The risk of nutrient loss from utilisation areas and run-off to surface waters, can be prevented or mitigated by selecting areas that provide suitable land and buffers to sensitive sites, by using appropriate spreading or irrigation practices, and by regularly monitoring soil nutrient levels and responding appropriately.

Surface waters

The Waste Guidelines and the Environmental Code of Practice, recommend a series of practices to ensure that runoff to surface water, does not occur as a result the application of either liquid or solid waste, including:

- effluent applications should never raise the soil moisture content above field capacity,
- the rate of effluent application is controlled to ensure that runoff does not occur,
- effluent should not be irrigated if the soil is waterlogged.,
- effluent should not be irrigated under heavy cloud, if rain is forecast or on windy days,
- provide suitable buffers between utilisation areas and watercourses.

It should be noted that the Waste Guidelines and the Environmental Code of Practice, do not stipulate what size buffers should be in place, and the SEE only commits to not spreading solid waste within 50 metres of a waterway and 10 metres of a property boundary, and is silent on the matter of irrigation buffers. Therefore, conditions will be imposed in relation to buffers for the application of waste (liquid and solid), that are consistent with the *Effluent reuse management* guidelines and the *Use of effluent by irrigation* guidelines. This will include the following buffers:

- watercourses– 50 metres,
- farm dams – 40 metres,
- bores used for household water supply – 250 metres,
- dwelling – 50 metres,
- property boundary – 10 metres.

Provided these management practices are adhered to, the likelihood of surface waters or Muttama Creek being impacted, is highly unlikely.

Groundwater

The Waste Guidelines and the Environmental Code of Practice, recommend a series of practices to ensure that runoff to surface water, does not occur as a result the application of either liquid or solid waste, including:

- the land application of feedlot wastes (both liquid and solids) is to be made at rates consistent with the ability of soils and crops grown in the utilisation area to sustainably utilise the applied nutrients and salts, to ensure that excess nutrients do not remain in the soil and leach into groundwater over time, and contaminate it,
- spread manure and effluent evenly,
- soil condition is monitored periodically and soil tests are used where there is potential for deterioration of soil condition,
- groundwater monitoring is undertaken on an as-required basis prescribed by a licence or regulatory authority,
- applying manure at appropriate times (generally 4–6 months before the crop is established), to allow nutrients to mineralise from their organic matter.

Underlying the protection of groundwater from the application of waste water and solids, is the principle of nutrient budgeting. This requires, an understating of:

- the concentration of nitrogen, phosphorus and potassium in the waste ,
- the removal rate of the crop that will be grown on the area,
- the properties of the soils in the utilisation area including their capacity to store the nutrients, and
- allowable losses from the system.

This will require testing of the soils and of the effluent and solid waste to be applied to the land, so that the waste is applied at the appropriate quantities, to ensure that there is no excessive nutrient build-up in the soil, which could in time leach into the groundwater system. Generally, nitrogen is the limiting factor when applying waste to land, because impacts from too much potassium and phosphorous are less of a concern, as the soils have a greater capacity to store them. This means that crops will generally get all of their nitrogen requirements from the waste, but may still require some other form of fertiliser. This will of course depend on the crops being grown, as they all have different nutrient removal rates, e.g wheat straw has a low nutrient removal rate (0.5%), while Canola has a higher removal rate (4.6%). Other factors also contribute to these uptake rates, such as climate, which is why testing of all the elements in so important.

The SEE has committed to complying with the above practices, and has provided some indicative data on suggested crops, waste composition and application rates. This data is consistent with the relevant Waste Guidelines and *Use of effluent by irrigation* guideline, and indicates that there is sufficient area on the property to dispose of all the effluent. It should be noted that not all of the waste utilisation area will be used very year, allowing rotational cropping.

The SEE states that all compost (the manure containing the carcasses) and all effluent, will be disposed of on-site. Solid waste also contains a high level of nutrients, and the SEE indicates that there is not sufficient land to dispose of all solid waste on the property. However, this is not considered a major issue, as the disposal of solids off-site is a common practice (with an established market - farmers, landscape yards, etc), and a practice accepted by the Environment Protection Authority (EPA). In fact, the EPA has prepared resource recovery orders and resource recovery exemptions for compost, effluent and manure, to facilitate the

removal, and off-site disposal, of these by-products. Therefore, the only exemptions and orders relevant to this proposed are:

- **The manure exemption 2014** – exempts a consumer of manure (off-site receiver) from certain requirements under the *Protection of the Environment Operations Act 1997* (POEO Act) and the Waste Regulation, in relation to the application of that waste to land. This exemption is on the basis that the consumer complies with the conditions of the exemption, e.g is applied to land as a soil amendment, does not contain human faecal matter, application must occur within a reasonable period of time after receipt, and the property does not hold a licence under the POEO Act;
- *The manure order 2014* - imposes the requirements (if any) that must be met by suppliers of manure (the operator of the feedlot), to which '*The manure exemption 2014*' applies. There are no specific conditions in this order, but the "notes" to the order state that "any person or entity which supplies manure should assess whether the material is fit for the purpose the material is proposed to be used for, and whether this use may cause harm. The supplier may need to seek expert engineering or technical advice".

Groundwater monitoring

The monitoring of groundwater quality can play an important role in preventing or minimising any adverse effects on the environment. Monitoring allows the Applicant and Council to measure any changes in the environment, allow remedial action to be undertaken if necessary and to identify the reasons for the changes.

The National Guidelines, Design Guidelines, Waste Guidelines and Environmental Code of Practice, acknowledge that bores or piezometers can be used to monitor groundwater quality, stating that in some states, it may be a requirement of any development consent or feedlot licence that piezometers be installed for this purpose, and that groundwater monitoring is undertaken on an as-required basis prescribed by a licence or regulatory authority. These documents, however, stop short of mandating it or even recommending it.

The *Effluent reuse management* guidelines states that for those areas where effluent and solids are applied to land, soil monitoring generally provides an early detection system, enabling correction. However, groundwater monitoring may be warranted to detect nutrient leaching from facilities at vulnerable sites, or where site design is likely to result in leaching. It is not considered that this site is high risk or vulnerable (as it is not mapped as such) or that the design of the feedlot is likely to result in leaching. The SEE commits, and the conditions reinforce, the requirement for impervious construction, and provided it can be demonstrated that it can be achieved, groundwater monitoring is not considered necessary in this instance.

Ground and surface water conclusion

There are many possible sources of ground and surface water contamination, however, the SEE has been conservative in terms of both the capacity and design of the effluent holding structures. Despite the concern of the neighbours, it is considered that if the feedlot is constructed as per the conditions and commitments in the SEE, and the feedlot is operated in accordance with best-practice, that the risk of polluting ground and surface waters is minimal.

(d) the potential for the degradation of soils,

Similar to the issue of groundwater, the degradation of soils can occur through the application of excess nutrients (not taken up by crops), and other compounds such as salt,

and to a lesser extent through erosion from run-off. The SEE provides a summary of the typical soil type for the area, with soil tests in the locality confirming that the soils are generally a sandy clay loam. The SEE also contains agronomic soil test results, which shows that there are presently low levels of nitrogen in the soil (which means that soil could benefit from the application of nitrogen rich effluent), acceptable levels of phosphorous, high levels of potassium, and acceptable salinity.

The potential for the degradation of soils will be minimised by ensuring that effluent is applied at such rates that there is no run-off and risk of erosion (which would be an extremely unlikely occurrence under most circumstances). Furthermore, the annual testing of soils, effluent and manure, prior to application, will ensure that a measured amount of effluent is added to the land, to ensure that there is no excess build-up of nutrients.

(e) the measures proposed to mitigate any potential adverse impacts,

Predominantly the measures proposed to mitigate any potential impacts, involve compliance with industry guidelines, as well as the overarching environmental controls detailed in the variety of relevant Government publications. Essentially this relates to the design, construction, operation and maintenance of all aspects of the development, on which the SEE and conditions of consent have been based. These controls have been discussed throughout this report and the SEE, and broadly include:

- separation of the feedlot from receptors and watercourses,
- constructing the pens, drains and effluent structures with impervious surfaces,
- managing solid and liquid waste so as not to degrade soils and pollute ground and surface waters,
- regular testing, monitoring and reporting.

(f) the suitability of the site in the circumstances,

The development is considered to be compatible with the adjoining land uses, in as much as the area is rural in nature, and the development is a rural activity (*albeit* intensive in nature). It is considered that the chosen site is better suited than the rest of the property, given the zoning, topography and setbacks from nearby dwellings, thereby minimising the likelihood of negative impacts. The land involved in the proposal will benefit from the spreading of the waste, which will obtain essential nutrients that are contained within (subject to appropriate application rates).

(g) whether the applicant has indicated an intention to comply with relevant industry codes of practice for the health and welfare of animals,

Concern has been raised in some of the submissions, regarding animal welfare. The SEE indicates that the feedlot will be operated in accordance with the *Australian Animal Welfare Standards and Guidelines for Cattle* (2016), produced by Animal Health Australia. This document establishes standards and guidelines for the welfare of all cattle in Australia, and it applies to all cattle-farming enterprises in Australia, and to those responsible for the care and management of cattle (even a single bovine).

These Guidelines address such issues as ensuring:

- cattle have reasonable access to adequate and appropriate feed and water,
- cattle are managed to minimise the impact of threats to their welfare including, extremes of weather, natural disasters, disease, injury and predation,
- facilities and equipment are appropriate to minimise the risk to the welfare of cattle,

- handling and management practices are appropriate and minimise the risk to the welfare of cattle,
- castration, dehorning and spaying are done only when necessary and in a manner that minimises the risk to the welfare of cattle, particularly pain and distress,
- where it is necessary to kill cattle, it is done promptly, safely and humanely.

It also contains other standards, which are not relevant to the proposal such as dairy cattle, calf rearing and breeding.

The SEE also states that the number of cattle transported per truck, will be consistent with the *Australian Animal Welfare Standards and Guidelines – Land Transport of Livestock* (2012), prepared by Animal Health Australia.

Furthermore, it is intended that a condition of consent be imposed requiring compliance with these Guidelines.

(h) the consistency of the proposal with, and any reasons for departing from, the environmental planning and assessment aspects of any guidelines for the establishment and operation of relevant types of intensive livestock agriculture published, and made available to the consent authority, by the Department of Primary Industries (within the Department of Industry) and approved by the Planning Secretary.

Staff have not identified any significant departures from the various documents and guidelines referenced throughout this report, which have been referenced, prepared, endorsed and/or contributed to, by the Department of Primary Industries. The information and commitments in the SEE are largely on the conservative side, frequently using the worst-case scenario and overestimating the potential impacts.

6.1 Earthworks

There will be significant earthworks in the construction of the cattle feedlot, involving the construction of the pens, drains and effluent storage structures (manure pad, sedimentation basin and effluent holding pond), and to a lesser extent internal road access.

Council considers that there will be no detrimental effect on drainage patterns in the locality, as only a small amount of site drainage will be redirected around the feedlot (via a diversion bank), and back into the existing drainage line. This is because the feedlot is located towards the top of the local catchment, with very little run-on at that point (see Figure 7 above).

Furthermore, provided appropriate construction techniques are employed (stripping and stockpiling top soil, sedimentation and erosion controls, etc) and any exposed surfaces are protected following construction (seeded or otherwise stabilised), then the stability of the soil should not be impacted adversely.

The earthworks proposed to be carried out will not impact on the likely future use or redevelopment of the land, as only a small portion of the whole property is subject to the earthworks. Furthermore, should the cattle feedlot cease operating, it is possible for the site to be rehabilitated by filling in the basin and pond, and re-establishing plant cover in the pen areas (although additional earthworks may be needed depending on the compaction of the ground).

The quality of the soil to be excavated is considered suitable to be re-used or disposed of on-site, if required, as it is unlikely to be contaminated. At this stage it is considered that the soil on-site may be suitable for the construction of the feedlot, given the clay content, although it will be necessary

for soil testing to be done prior to the works, to determine that the required permeability can be obtained. If not, additional construction materials may need to be brought on-site, or synthetic liners, may be required.

The earthworks are unlikely to impact on the amenity of adjoining properties, due to the significant setbacks, however, should noise or dust be experienced, these episodes should be short-lived only. Appropriate conditions will be imposed regarding nuisance during the construction phase, in relation to noise, dust and hours of operation.

As discussed earlier, there is always the likelihood of disturbing relics whilst carrying out earthworks (although it is considered low in this instance due to the disturbed nature of the site), and appropriate conditions have been imposed.

Given the setbacks to watercourses in the area, the potential for adverse impacts from earthworks on these waterways is minimal, but the requirement for sedimentation and erosion control will be imposed as a condition of consent to further reduce the likely impact of the works.

6.2 Flood planning

The site is not affected by the flood mapping in the LEP, which is based on the 2001 Cootamundra Flood Study.

6.3 Terrestrial biodiversity

This clause applies to land that is identified as biodiversity land on the **Terrestrial Biodiversity Map**, and the eastern part of the site has been mapped as such, shown in the following figure. It is considered that this part of the site has been mapped as such, as it contains a number of isolated paddock trees (See Figure 3 – Aerial view – site, at the start of this report).

Figure 8 – Terrestrial Biodiversity Map extract (BIO_005)



Before determining a development application for development on land to which this clause applies, Council must consider, the following issues, which have been discussed previously, in relation to the *Biodiversity Conservation Act 2016*:

(a) *whether the development is likely to have—*

(i) *any adverse impact on the condition, ecological value and significance of the fauna and flora on the land, and*

The bulk of the development is on cleared land, and does not involve the removal of trees or native groundcover. An internal road will need to be constructed from the existing cattle feedlot, along an existing informal track that follows an internal fence line, part way to the new site. This track will need to be upgraded and extended to service the new site, but will not require the removal of any trees, only pasture. This will be conditioned accordingly, and no adverse impact is expected.

(ii) *any adverse impact on the importance of the vegetation on the land to the habitat and survival of native fauna, and*

The development will not impact the importance of the vegetation on-site, in terms of its functioning as habitat for native fauna, as no trees or native groundcover, is being removed.

(iii) *any potential to fragment, disturb or diminish the biodiversity structure, function and composition of the land, and*

The works on the site will not disturb or significantly fragment any stands of vegetation on the property, due to the sparse nature of the trees in the area.

(iv) *any adverse impact on the habitat elements providing connectivity on the land, and*

The development will not impact on any wildlife corridors or connectivity, with the bulk of the works remote from any significant vegetation.

(b) *any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.*

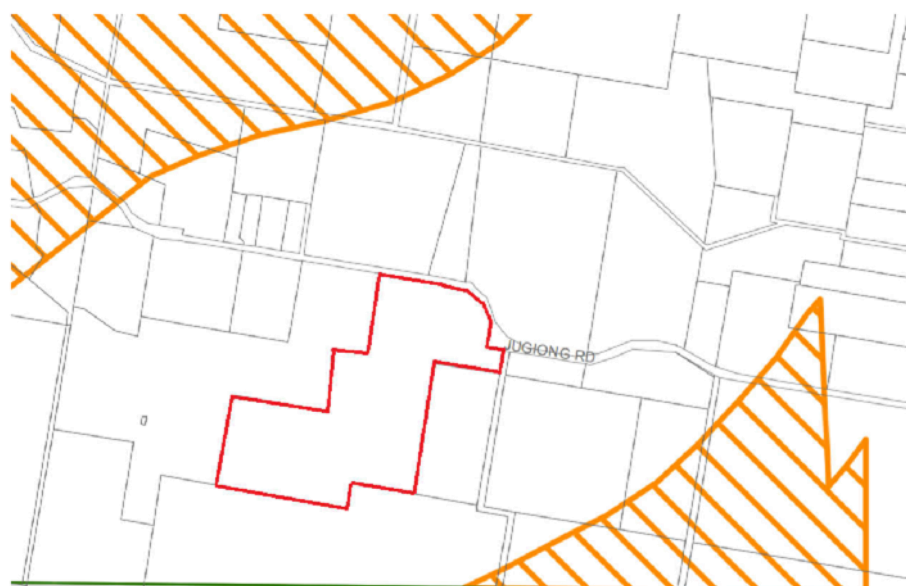
A condition will be imposed that restricts the removal of trees without the consent of Council.

In conclusion, it is determined that there will be no adverse impact on ecological communities, threatened species or any habitat, and that the development is designed, sited and will be managed to avoid any adverse environmental impact, as there is no disturbance of, or to, local flora and fauna. See also discussion relating to the *Biodiversity Conservation Act 2016*.

6.4 Groundwater vulnerability

This clause applies to land that is identified as groundwater vulnerable on the **Groundwater Vulnerability Map**. None of the site has been mapped as having vulnerable groundwater, and legislatively, consideration of this clause is not required in relation to this development. However, there is land mapped as such in the locality, as shown on the following map.

Figure 9 – Groundwater Vulnerability Map extract (CL1_005)



This map identifies areas that have a susceptibility to groundwater contamination, or are likely to have high value for supply of water to town, stock and domestic, irrigation and commercial users, where contamination cannot be tolerated. It is not known how the mapped was derived, but appears that the mapped areas coincide with some locations that have a large number of bores.

The objective of this clause is to maintain the hydrological functions of key groundwater systems, and protect them from depletion and contamination, and before determining a development application for development on land to which this clause applies, the consent authority must consider these issues. The issue contamination has been discussed at length above, and the risk of contamination is low, and the development does not rely on the use of bore water, and therefore will not contribute to the depletion of groundwater supplies.

6.5 Riparian land and watercourses

This clause applies to land that is identified as a watercourse on the **Watercourses Map**, and to all land that is within 40 metres of the top of the bank of each watercourse on land identified as watercourse, on that map. The site is not mapped as being affected, and is not within 40 metres of a mapped area, and accordingly this clause is not applicable.

6.6 Salinity

This clause applies to land identified as dryland salinity on the **Natural Resources Land Map**, but the site is not mapped as being affected, and accordingly this clause is not applicable.

6.7 Highly erodible soils

This clause applies to land identified as high soil erodibility on the **Natural Resources Land Map**, but the site is not mapped as being affected, and accordingly this clause is not applicable.

6.8 Airspace operations

This clause applies to developments that penetrate the Limitation or Operations Surface of the Cootamundra Airport, which this development does not, and therefore this clause is not applicable.

6.9 Essential Services

This clause only applies to land that is zoned Zone RU4 Primary Production Small Lots, or Zone R5 Large Lot Residential, and therefore does not apply in this instance.

4.15(1)(a)(ii) The provisions of any draft environmental planning instrument:

State Environmental Planning Policies (SEPPs)

There are no draft SEPP's which relate to this development.

Local Environmental Plan (LEP)

There are no draft LEPs which apply to this land.

4.15(1)(a)(iii) The provisions of any development control plan:

Cootamundra Development Control Plan (DCP)

This DCP applies to the land, but is largely not relevant to this development, and the provisions of the following chapters are discussed as follows.

- Chapter 1 General information - Section 1.7 (Notification of Development Applications), contains provisions that relate to the notification of applications; however, the provisions of the Community Participation Plan takes precedence over this section of the DCP (see comments above in Section 2.22).
- Chapter 2 Residential Development - Does not apply to this type of development.
- Chapter 3 Business & Industrial Development - Does not apply to this zone.
- Chapter 4 Subdivision – Does not apply to this type of development.
- Chapter 5 Car parking and vehicle access – Not applicable as no impact on parking.
- Chapter 6 Environmental Management – Not applicable as land is not bushfire prone, flood prone or potentially contaminated.
- Chapter 7 Heritage – Not applicable as the site does not contain a heritage item and is not in the HCA.

4.15(1)(a)(iiia) Any planning agreement or draft planning agreement:

The developer has not entered into a planning agreement, nor has offered to enter into a draft planning agreement.

4.15(1)(a)(iv) Matters prescribed by the Regulations:

Council has considered the following matters as prescribed by Regulations:

Clause 92 (Additional matters for consideration): -

- the application does not involve the demolition of a building,
- the application is not for the carrying out of development on land that is subject to a subdivision order made under Schedule 7 to the Act,
- the development is not located within the local government area of Coonamble, City of Dubbo, Gilgandra or Warrumbungle (to which the Dark Sky Planning Guideline applies),
- the application does not pertain to a manor house or multi dwelling housing (terraces),
- the development is not for the erection of a building for residential purposes on land in Penrith City Centre.

Clause 93 (Fire safety and other considerations)

- the development is not for a change of building use for an existing building.

Clause 94 (Consent authority may require buildings to be upgraded)

- the development does not involve the rebuilding, enlargement or extension of an existing building.

Clause 94A (Fire safety and other considerations - temporary structures)

- the development is not for a temporary structure.

Clause 288 (Special provision relating to Sydney Opera House)

- the development does not relate to the Sydney Opera House.

4.15(1)(b) The likely impacts of that development:

Context and Setting:

Despite its proximity to Cootamundra, the area as whole is rural/agricultural in nature, supporting a mixture of traditional farming practices (cropping and grazing), and more intensive types of activities, such as an olive grove. The proposed development is agricultural in nature, *albeit* intensive, but provided Council is satisfied that there will be no nuisance or loss of amenity, then it must be considered compatible in both a regional and local context.

Several of the submissions made reference to the visual impact of the feedlot, calling it "unsightly" and a "blight on the landscape". Whilst the current unapproved feedlot is visible from the road and the neighbouring driveway, it is so at a distance of 380 metres and 320 metres respectively. The new location of the feedlot, whilst it may be visible from some houses to the north, as well as locations along Jugiong Road, the viewing opportunities are limited, as the facility is intermittently obstructed by topography and vegetation, depending on the location. Furthermore, the proposed feedlot will be setback approximately 1 km from the road and 700 metres to the nearest dwelling. Viewed from these distances, the adverse visual impact should be sufficiently negated. In addition, the location of the proposed feedlot is such that it is not visible from any dwelling or public road to the east or west (as it is located in a slight saddle), or from south (as the land rises up).

It is not considered that the character of the area or the streetscape will be impacted negatively, as the development does not involve the erection of any buildings. Furthermore, any

infrastructure required, such as fencing, water tanks, feed silos and the sedimentation basin and effluent holding ponds, are low profile and in keeping with infrastructure typically found on rural properties.

Following is a photo showing a view towards the feedlot from Jugiong Road (directly north of the feedlot).

Photo 2 - View from Jugiong Road towards site of feedlot



In addition, the SEE proposes that several rows of endemic native trees will be planted along the northern, eastern and western edge of the facility, with additional plantings proposed along the northern boundary of the site adjacent Jugiong Road. In conclusion, no valued views or vistas or rural landscape character would be adversely impacted by the proposal, and it is considered that the development is appropriate in terms of local character and setting.

Access, Transport and Traffic:

From the application, operationally the feedlot will generate approximately 540 truck movements¹ per year, being 10 truck movements per week, and 2 truck movements per weekday. In simple terms, this means that on average, only 1 truck will visit the site each weekday. This is comprised of:

Table 3 – Truck movements

	Year		Week		Weekday (5 days)	
	Movements ¹	Trips ²	Movements ¹	Trips ²	Movements ¹	Trips ²
Cattle in	124	62	2.4	1.2	0.5	0.2
Cattle out	140	70	2.7	1.3	0.5	0.3
Feed in	250	125	4.8	2.4	1	0.5
Manure out	26	13	0.25	0.5	0.05	0.1
Total	540	270	10.2	5.4	2.05	1.1

NOTE¹: In this context, one (1) truck movement equates to a **single** movement into **or** out of the property

NOTE²: In this context, one (1) trip equates to a **double** movement both into **and** out of the property

The SEE is silent on other possible types of traffic, such as construction traffic, maintenance traffic, staff, veterinary visits, etc. However, it is considered that construction traffic will be

minimal and short-lived, that traffic generated from maintenance and staff movements will be minimal, particularly as the feedlot is owner-operated, with no employees other than the land owner and his family.

The application was tabled before the Traffic Committee, who raised the following issues, some of which were echoed in the submissions. These issues are discussed as follows:

Design, construction and sealing of the access off Jugiong Road.

It was considered necessary that the existing access off Jugiong Road be upgraded and sealed (including its possible relocation), to ensure that it is located and constructed in the best available location, and to a suitable standard. This would require full engineering design plans to be prepared by a suitably qualified engineer, and submitted to Council for approval. Construction of the access would most likely require the installation of warning/advisory signs on the approach to the access, due to the limited sight distance. Given that on average there is only 1 truck that visits the site per weekday, it is considered that the upgrade of the access and the provision of signage will compensate for the reduced sight distance.

The Committee also indicated that the access would need to be sealed back to fence line and perhaps recessed gateway, so that a B-double could drive off the road without its tail end still on the road. The SEE however, only refers to semi-trailers accessing the site, so the access should be designed based on a semi-trailer. Furthermore, it will be condition that the largest truck to service the development, will be a 19 metre semi-trailer or truck and trailer combination.

Restricted speed and times of travel for trucks

The Committee raised the issue of implementing a condition that places travel times and speed restrictions on trucks on Jugiong Road due to school bus route and trucks creating noise for properties along Jugiong Road. Whilst this is possible, it becomes very difficult to enforce, and can be seen as inequitable, as other heavy vehicle road users are not subject to the same rules.

Furthermore, by law, all vehicles are required to slow down to 40 kmph when passing a school bus when the school bus lights are flashing, and generally there is signage at the approaches to a school bus stop.

Therefore, no condition has been imposed in this regard but Council could choose to do so, if required.

Standard of Jugiong Road

The question was asked as to whether Jugiong Road was capable of handling trucks due to its width, unsealed shoulders, and both horizontal and vertical curves. The standard of the road is important on a number of levels, but in this context Council needs to be satisfied that road is suitable for the anticipated increase in truck movements (noting the feedlot has been operating without consent for some time, with no recorded incidents). If the road is presently unsuitable for any trucks, then it is the responsibility of Council to either upgrade the road, or prevent heavy vehicles from using it. If the road is suitable for the number of trucks that presently use the road, then Council must determine whether 5 extra trucks per week on average (1 per weekday), would exceed the capacity of the road. No evidence has been presented to suggest that this is the case.

Access to only be off Muttama Road to feedlot (not from Old Gundagai Road)

Due to the load limit restriction on Old Gundagai Road, and the sight distance available, it is intended that this be conditioned.

Can monetary payments for up keep of Jugiong Road be levied ?

The simple answer is no. There is no section 7.11 Contribution Plan in place in the former Cootamundra Shire, for this purposes.

Public Domain:

The development will not impact negatively in terms of such things as recreational opportunities, or the amount, location, design, use and management of public spaces.

Utilities:

Reticulated gas and sewerage is not available to the property, and is not required for the development.

Power is presently connected to the existing house on the property, and the SEE does not indicate that power is required for the feedlot. In the event that power is required for any activity or infrastructure, e.g. pumps, augers, etc., power could be extended to the feedlot site, although this is unlikely, as the closest point on the property is 900 metres away. Therefore, it is more likely that if power is required, it will be in the form of a solar panel in the paddock, or a generator.

Two (2) of the submissions expressed concern about the impact on other users of the Goldenfields Water supply. The Applicant has confirmed that the water needs of the development will be sourced from the dams on-site, with reticulated water from Goldenfields Water providing a backup supply. The Applicant has supplied a monthly water balance detailing the water needs of the development, the average monthly rainfall and evaporation rates, and runoff. This demonstrates that the existing dams have sufficient capacity to supply the development, based on average rainfall, and with the intended removal of sediment build-up, will provide even more capacity. Furthermore, the dams will not exceed the property's harvestable rights. It is intended to impose a conditions that prevents the use of Goldenfields Water in the feedlot (except in emergency situations), unless the written consent of Goldenfields Water has been obtained.

Heritage:

There is no likely impact on Aboriginal or European heritage, as a result of the development (see assessment above in Section 5.10 of the LEP).

Other Land Resources:

It is not expected that the development will have any adverse effect on conserving and using valuable land resources such as productive agricultural land, mineral extractive resources or water supply catchments. Whilst a small amount of farming land will be lost to the effluent storage infrastructure, this is offset by the intensification of livestock activities on-site, and the use of the waste products on other areas of the farm.

Water:

The issues of water supply, and impact on ground and surface waters has been discussed at length earlier in the report. Provided the development is designed, constructed and managed in accordance with the relevant industry guidelines, the commitments in the SEE and the proposed conditions of consent, it is unlikely that the development will have an effect on surface or groundwater, drainage flows or water quality.

Soil:

The issues of the development's impact on the soil have been discussed in depth, earlier in this report. Provided the development is designed, constructed and managed in accordance with the relevant industry guidelines, the commitments in the SEE and the proposed conditions of consent, it is unlikely that the development will have any impact on soil conservation in terms of - soil qualities or instability, management of soils, soil erosion and degradation, sedimentation and pollution of water bodies contamination, or acid sulphate soils.

Air and Microclimate:

This issue of odour has been discussed at length earlier in this report, and it has been demonstrated that there is sufficient distance between the feedlot and nearby receptors, and coupled with best practice, there should be little or no adverse impact from odour.

The issue of dust has been discussed briefly in different sections of this report. It is considered that dust is unlikely to be a significant issue, because: (i) construction dust will be managed through conditions, and will be a short-lived event, (ii) the feedlot has been designed at an optimal density, to prevent dust generation, (iii) industry guidelines and the conditions of consent ensure that manure is not spread if too dry, (iv) proposed screen plantings will assist in dust capture.

Flora and Fauna:

This issue has been discussed above, and as no tree or native groundcover removal is proposed, the development will not have any impact on critical habitats, threatened species or populations, ecological communities or any other protected species, or on native fauna or vegetation.

Concern was raised in one of the submission regarding flies, and the SEE states that flies and rodents will be controlled as necessary using a program of strategic baiting. This can also be controlled through best practice, including: good manure management (e.g removal from under fence lines and drains), cleaning up feed spills, good feedstuff storage, appropriate mortalities management (compost and cover completely), and vegetation management (mowing or slashing around the feedlot complex, particularly areas adjacent to drains and pens). A condition will be imposed in this regard.

There is also a propensity for increased weeds from the spreading of manure, and although the manure aging processes can destroy most weed seeds, some seeds may remain viable. A weeds control program should be implemented, to ensure weeds on site are appropriately controlled.

Waste:

The issue of waste has been thoroughly discussed elsewhere in his report, and provided the development is designed, constructed and managed in accordance with the relevant industry

guidelines, the commitments in the SEE and the proposed conditions of consent, there should be no adverse impacts from waste storage or disposal.

Energy:

The development has minimal energy requirements, and the issue of solar passive design is not relevant to this proposal.

Noise and Vibration

Noise has been raised in several of the submissions, stating noise occurs at night, and is generated from spreading of waste, the hammer mill and machinery, cows bellowing and from trucks. Noise will be generated both during the construction phase of the feedlot and during the on-going operation of the development.

During the construction phase the use of heavy machinery will generate some noise, but these events are temporary in nature. Coupled with the setbacks from neighbouring dwellings, the hours of construction in the conditions and construction noise condition, little or no impact is expected from noise during the construction phase.

During the operational phase of the feedlot and the carrying out of the associated activities, there are several potential noise sources, including:

- stock handling activities (e.g. loading, unloading, moving, drafting),
- vehicle movements (including feed trucks and stock transports)
- feed milling and handling,
- other plant and equipment, e.g waste spreaders.

It is considered that most plant and equipment and vehicles are similar to that used on surrounding properties, and will be used mostly during daylight hours and then only intermittently, and is not considered to be out of place in the area. Some activities may be carried out early in the morning or late in the afternoon/evening for welfare reasons (such as loading of cattle in summer when it is cooler), but again most of these events are transient in nature.

No noise study was prepared in relation to the development, and is not considered necessary, given the nature and frequency of the noise generating activities and the setbacks to nearby to dwellings. An example of one possible noise impact at the closest dwelling (700 metres away), is from the cleaning of the pens with a front end loader (115 dB(A)). The likely impact has been calculated, as follows, but does not make allowance for mitigating factors such as terrain, vegetation, wind, humidity, transmission through walls, etc.):

- a basic principle of noise dispersion is that it reduces by 6dB(A) per distance doubled, with the initial noise reading taken at a distance of 1 metre from the noise source.
- using this principle, the following dB(A) are indicative noise outcomes, working from a base of 115 dB(A) at the noise source:
 - 1 m = 115 dB(A)
 - 2 m = 109 dB(A)
 - 4 m = 103 dB(A)
 - 8 m = 97 dB(A)
 - 16 m = 91 dB(A)
 - 32 m = 85 dB(A)
 - 64 m = 79 dB(A)
 - 128 m = 73 dB(A)
 - 256 m = 67 dB(A)

- 512 m = 61 dB(A)
- 1024 m = 55 dB(A).

Therefore, at the closest dwelling, a noise level of between 55 dB(A) and 61 d(BA) (equivalent to a normal conversation), could be expected outside the house. Walls and windows will further reduce the noise inside the dwelling.

That said, a standard condition will be included in the consent relating to noise.

Natural Hazards:

There are no known risks to people, property or the biophysical environment from – geologic or soil instability, bushfire or flooding.

Technological hazards

There are no known risks to people, property or the biophysical environment from industrial and technological hazards, land contamination and remediation or building fire risk. All chemicals, cleaning and disinfectant agents, pesticides, herbicides and veterinary drugs will need to be kept in a safe and secure location.

Safety, security and crime prevention

The site is fenced and access is controlled by gates, and access to the cattle feedlot is past the dwelling on the property. It is unlikely that the development would create any additional safety, security or crime risks, and it is not considered that the proposed development would impact on the security and safety of adjoining properties nor will the design encourage criminal activity.

Social Impacts in the Locality:

It is not considered that the development will have a negative social impact in terms of the health and safety of the community, social cohesion, community structure, character, values or beliefs, social equity, socio-economic groups or the disadvantaged, and social displacement.

One of the submissions states that since the unapproved feedlot has been operating that there has been a negative impact on their health and the health of their visitors, including, lung infections, stomach viruses and eye infections. It is also claimed that a Doctor has said that it is “highly likely” that the feedlot has caused these illnesses, but no evidence has been supplied to substantiate this.

Diseases such as Q Fever and Leptospirosis are known to transmit between cattle and humans, but are generally confined to risks groups such as abattoir workers, livestock handlers, veterinarians and biological laboratory workers. They are not generally known to infect people that are located 1 km away. Some of the symptoms of these diseases include headache, fever, coughing, exhaustion, sensations of chill, muscle pain, muscle soreness, stiffness in the neck, sweating, loss of appetite, inflammation of lungs, liver and heart and affecting kidneys. These diseases can be tested for should a patient present with these symptoms. Based on these symptoms and the separation distance, it is unlikely (but not impossible) that that the reported illness can be attributed to the feedlot.

Economic Impact in the Locality:

Most of the submissions raised concerns about the impact of the feedlot on their property values. Another submission stated that the feedlot would have a negative financial impact on a proposed subdivision in the RU4 zone. The impact that a development may have on property values is hard to identify, with many other factors contributing to property value.

Even if the impact could be quantified, the Land and Environment Court has typically refused to consider such impacts. More specifically, it has held that "impacts on land values are not matters for consideration in dealing with development applications," and "I pay no regard to the fears about loss of property values as, consistent with the position long taken in the Court, this is not a relevant planning consideration".

Accordingly, in this instance, it is not considered that refusal of the development on the basis of economic impacts is warranted.

Site Design and Internal Design:

The development design is sensitive to environmental conditions and site attributes including, the size and shape of the land and position of the feedlot. It is setback some distance from the adjacent road and nearby dwellings, and utilises existing infrastructure on the property, such roads, grain silos and cattle loading and unloading facilities.

Construction Matters:

The environmental issues and impacts associated with the construction phase of the development have been addressed throughout this report as necessary. This includes such things as erosion and sedimentation control, hours of construction, etc., and minimal impact is expected.

Cumulative impacts

Cumulative impacts include such things as different impacts occurring so close in time, or so close in location, that the impacts overlap and cause a greater impact. Cumulative impacts can also take the form of repetitive, often minor impacts eroding environmental conditions, or different types of impacts interacting to produce another impact. Cumulatively, the environmental impacts associated with the development have been considered in the report, as the impacts on soils and water and interrelated. Furthermore, as the impacts of the individual environmental factors are considered minimal, no significant cumulative impact is anticipated from the proposed feedlot.

4.15(1)(c) - The suitability of the site for the development:***Does the proposal fit in the locality ?***

The development, if designed, constructed and operated appropriately, will result in a cattle feedlot that fits in the locality. There are no constraints posed by adjacent developments that would prohibit the development, given the size of the property, the minimal impacts and the setbacks proposed. It is considered that the air quality and microclimate are appropriate for the development, and there are no hazardous landuses or activities nearby, and ambient noise levels are suitable for the development.

Are the site attributes conducive to development ?

The site is not subject to natural hazards including flooding, bushfire, subsidence, slip or mass movement. The soil characteristics are appropriate for the development, and there are no critical habitats, or threatened species, populations, ecological communities or habitats on the site. The development will not prejudice future agricultural production and there are no known mineral or extractive resources on the site. This issue of potential site contamination has been discussed previously.

4.15(1)(d) - Any submissions made:

The majority of issues raised in the submissions have been addressed thought this report. The issues that have not already been addressed are, discussed as follows:

The feedlot started without consent and continues to operate

Most of the submissions expressed concern that the feedlot started without consent, and has continued to operate, without Council taking any enforcement action. Generally, when Council identifies illegal development, the first approach is to determine if the development can be legitimised through obtaining consent, and then pursue this option. In this instance, the feedlot operator has sought to obtain approval for the feedlot, and consequently Council has not resolved to take any compliance action. However, if directed by Council, enforcement action can be taken to ensure the feedlot ceases operating.

The SEE identifies that the new feedlot may be constructed in two (2) stages – Stage 1 being a 300 SCU feedlot, and Stage 2 being a 300 SCU feedlot. In principle there is no issue with this, however, it is expected that the effluent holding systems would be constructed for the ultimate capacity, as much of the cost involved is in earthworks and ensuring the structures have an impervious surface. It is intended to impose a condition that requires the existing feedlot to be decommissioned and the site rehabilitated within twelve (12) months of the consent, or within three (3) months of the feedlot becoming fully operational (600 SCU), whichever occurs first.

Owner of the feedlot has not contacted neighbours to discuss their concerns

This is not a planning issue.

Jugiong Road is zoned rural-residential and intensive farming is not permitted

One of the submissions states that the Jugiong Road is zoned rural-residential, and that no intensive farming is permitted. This is not technically accurate, as the land is not rural-residential, but rather is a primary production zone with a smaller lot size (as the zone name suggests – RU4 Primary Production Small Lots). Furthermore, the RU4 zone, can also be used for a variety of agricultural purposes and intensive agricultural uses, such as extensive agriculture, aquaculture and intensive plant agriculture, and it should be expected that some form of agriculture will be carried out on the land, and on the surrounding land. It should be noted that the RU4 zone is only a narrow strip along the first part of the road, with the majority of the land zoned RU1 Primary Production.

None the less, there is subdivision potential on the land to the north, and this needs to be considered. In the assessment this issue, consideration of both the rights of the Applicant to develop in the RU1 zone, and consideration of the concerns of a neighbour in the adjacent RU4

zone, needs to be undertaken. This approach is reflected in the NSW Land and Environment Court Planning Principle, on “development at zone interface”.

This principle states that at a zone interface (as exists here), any development proposal in one zone needs to recognise and take into account the form of existing development and/or development likely to occur in an adjoining different zone. In this case residents living in the RU4 zone, must accept that a range of agricultural activities can occur in the adjoining RU1 zone, and whilst impacts must be within reason they can nevertheless occur. Conversely any development on the Applicant’s site must take into account its relationship to the RU4 zoned lands to the north. In considering this, it may be that the development of this site, may not be able to achieve the full potential otherwise enjoyed by another site located elsewhere in the RU1 zone.

It is considered that this has been taken into account in the current application. The SEE indicates that a more intensive feedlot could be accommodated onsite, however there would be an increased risk of amenity impacts. Furthermore, the feedlot is proposed in a location that will have less of an impact, based on an increase separation distance.

Biosecurity

One of the submissions raised concerns in “relation to biosecurity in regards to effluent run-off and how this will affect native trees”.

Biosecurity on the feedlot refers to the measures put in place to protect livestock against exposure to endemic and emergency diseases. It also aims to limit the spread of these diseases within livestock and, in the case of zoonotic diseases, human populations. Infectious diseases, whether they cause clinical (obvious) or subclinical (hidden) disease, significantly reduce the productivity, profitability and long term financial viability of a feedlot. Biosecurity on the feedlot also includes preventing the spread of diseases, pests and weeds to or from other primary industries.

The SEE does not overtly mention biosecurity, but many of the actions being undertaken in accordance with the industry guidelines, are consistent with the best management practices outlines in the *National Biosecurity manual for Beef Cattle Feedlots* (2013), published by Animal Health Australia. It is intended to impose a condition that the feedlot be operated in accordance with these guidelines, which are called up in the Design Guidelines.

4.15(1)(e) - The public interest:

Both the SEE and this report, reference the numerous planning guidelines and advisory documents that are apply to cattle feedlots, which includes the:

- *National Guidelines for Beef Cattle Feedlots in Australia* (MLA),
- *National Beef Cattle Feedlot Environmental Code of Practice* (MLA),
- *Beef cattle feedlots: design and construction* (MLA),
- *Beef Cattle Feedlots: Waste Management and Utilisation* (MLA),
- *Planning Guidelines - Intensive Livestock Agriculture Development* (DPIE),
- *Local Government Air Quality Toolkit for Beef Cattle Feedlots* (EPA),
- *Technical Notes: Assessment and Management of Odour from Stationary Sources in NSW* (EPA),
- *Effluent reuse management* (DECC & WaterNSW),
- *Use of effluent by irrigation* (DEC),
- *Australian Animal Welfare Standards and Guidelines for Cattle* (AHA),
- *Australian Animal Welfare Standards and Guidelines – Land Transport of Livestock* (AHA),
- *National Biosecurity manual for Beef Cattle Feedlots* (AHA).

It is considered that the development is largely consistent with these documents.

One of the submissions raised the issue that the development does not support the *Riverina Murray Regional Plan 2036*. This Plan has been developed to plan for future population's needs for housing, jobs, infrastructure and a healthy environment, in the Region. The Plan comprises four goals, 29 directions and 116 actions. The goals articulate the intended outcome; the directions identify the broad issues or policy areas that need to be focused on and the actions represent the steps to be taken or initiatives to introduce / implement to achieve the goals. Actions are either implemented as strategies or as initiatives.

The NSW Government has identified a lead agency and relevant partner stakeholders for each action. The lead agency is responsible for project managing the various tasks required to ensure success. Key stakeholders are those agencies, councils or organisations considered important partners for implementation. The list of partners is not exclusive and additional stakeholders may be identified as implementation progresses.

Given the diversity of the issues in the Plan, and the large region it covers, it stands to reason that not every action is relevant to every activity or development. It is considered that this report has shown that the development is consistent with the following directions and actions in the Plan:

Direction 1: Protect the region's diverse and productive agricultural land

- 1.3 Minimise biosecurity risks by undertaking risk assessments, taking into account biosecurity plans and applying appropriate buffer areas.

Direction 2: Promote and grow the agribusiness sector

- 2.2. Provide opportunities to improve support to agriculture through better guidance on protecting agricultural land and managing the interface with other land uses
- 2.3. Facilitate investment in the agricultural supply chain by protecting assets, including freight and logistics facilities, from land use conflict arising from the encroachment of incompatible land uses.

Direction 13: Manage and conserve water resources for the environment

- 13.1 Locate, design, construct and manage new developments to minimise impacts on water catchments, including downstream and groundwater sources.
- 13.2 Minimise the impacts of development on fish habitat, aquaculture and waterways (including watercourses, wetlands and riparian lands) and meet the Water Quality and River Flow Objectives.

Furthermore, the development is consistent with the Local Government Narrative in the Plan, which sets out the priorities for each Council. There are four (4) listed priorities identified in the Plan for Cootamundra-Gundagai Regional Council, including the following:

- *support agriculture as the dominant industry, encouraging development of large-scale livestock production and processing, as well as development of key freight transport services.*

Staff are not aware of any other policy statements from either Federal or State Government that are relevant to this proposal, nor any other planning studies or strategies. Overall, the proposal would not contravene the public interest.

OTHER MATTERS:**Section 7.11 and 7.12 Contributions Policies:**

Section 7.12(2) of the EPA Act, states that *“a consent authority cannot impose as a condition of the same development consent a condition under this section as well as a condition under section 7.11”*. Accordingly, Council can only require payment of either a 7.11 or 7.12 contributions.

Section 7.11 Contributions Plans

The only Section 7.11 plan in force is the “Development Generating Heavy Vehicle Usage of Local Road”, which only applies in Gundagai, and therefore is not applicable to the development.

Section 7.12 Contributions Plans

The *Cootamundra-Gundagai Regional Council Section 7.12 Fixed Development Consent Levy Contributions Plan 2018*, applies to this development, and condition will be imposed in this regard.

Disclosure of political donations and gifts:

The applicant and notification process did not result in any disclosure of Political Donations and Gifts.

FINANCIAL IMPACTS:

Nil

POLICY IMPACTS:

Nil

ORGANISATIONAL IMPACT:

Nil

RISK MANAGEMENT IMPACTS:

Nil

LEGAL ISSUES:

Nil

CONCLUSION:

In the assessment of a development application, Council must consider a number of issues related to that application, and essentially weigh up the positive and negative impacts of the proposal. In doing so, Council does not necessarily have to be assured that there are no impacts at all, but must be confident that those that do exist, are acceptable. In fact, there is no rule that says that if a development proposal meets with a negative reaction on any particular factor, that consent must be denied, which has been supported by various court cases.

In this instance there is potential for certain negative impacts associated with a development of this nature and size. These obviously relate to odour, traffic, water quality, dust, noise, land degradation and some other minor matters. There is also evidence that the current feedlot has created adverse impacts for some people.

It is believed that this report demonstrates that the potential impacts associated with the proposal can be adequately dealt with, and that there are few grounds upon which to refuse the application. The relocation of the feedlot and the construction of appropriate infrastructure and controls will result have a positive impact. Council has considered all matters under the relevant legislation,

and it considers that the proposed development is appropriate having regard to those matters, and that any impacts can be managed through appropriate conditions.

SCHEDULE 1, DIVISION 4, CLAUSE 20 - REASONS FOR THE DECISION:

This section of the Act requires the public notification of certain decisions, the date of the decision, the reasons for the decision and how community views were taken into account in making the decision. The reasons for the decision (as recommended to Council) and how community views were taken into account, as it relates to this application are:

- the proposed development is not inconsistent with the objectives of the zone,
- the proposed development is permitted in the zone,
- assessment of the development against the relevant guidelines demonstrates that the proposed development will not cause significant adverse impacts on the surrounding natural environment, built environment and infrastructure, community facilities, or local character and amenity,
- the proposed development does not compromise the relevant Environmental Planning Instruments,
- Council considers that the proposed development is appropriate having regard to the relevant matters and can be managed through appropriate conditions,
- neighbour notification was carried out as per the CPP, and each of the issues raised has been addressed within the report, and shown to be acceptable, subject to compliance with the industry guidelines and the conditions of consent.

DEVELOPMENT ASSESSMENT SIGNING OFFICER:

Laura Schweiger
Town Planner

_____ Date

Appendix 1.

Standard operating procedures for waste management and utilisation

This appendix provides suggested standard operating procedures for feedlot manure, compost and effluent management and utilisation that could be incorporated into a feedlot quality assurance system.

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Manure and effluent management procedures

1. Pen cleaning/manure removal

- Pens are cleaned regularly at intervals of 13 weeks or less.
- Pens are best cleaned when the manure is moist but not wet. However, they have to be cleaned regularly regardless of the manure moisture content.
- Manure is first removed from under fencelines, around water troughs, shade posts, and along and behind the aprons using a bobcat, under-fence pusher, slider blade or other equipment.
- Manure is then scraped from the pen surface into a mound. If an interface layer is to be retained, great care is taken with depth control. The depth to the interface layer is determined by pushing a screwdriver through the manure pad and noting the depth at the change in resistance at the interface layer. Box scrapers and graders provide good depth control and often are the best equipment for retaining an interface layer. If the manure will be removed down to the gravel pad, a wheel loader or excavator can also be used. Under wet conditions, an excavator may be useful.
- Generally the manure will be removed promptly either to the manure stockpiling/composting area or off-site. A front-end loader is used to transfer the mounded manure to a truck or trucks (using two trucks will minimise downtime while the manure is transported). The trucks are best parked within the pen close to the mound for loading, but otherwise along the bottom fenceline.
- Under some circumstances, a mound will be retained in the pen, but can be formed successfully only from manure that is moist. The manure also needs to be compacted so that it is not dispersed by the cattle. Mounds need to be shaped so they shed runoff, and located so that they do not interfere with pen drainage. In unshaded pens, they should be situated in the centre of the pen with their long axis running down the slope. In pens with shade, they should be located downslope of the shade structure.
- Any potholes or depressions in the pad are repaired (see Procedure 3).

2. Under-fence cleaning

- Under-fence cleaning is done at every pen cleaning, but also between pen cleanings as needed to remove accumulated manure that will obstruct pen drainage. This is particularly important for manure that has accumulated under the fenceline at the bottom of the pen.
- Manure is moved from under the fencelines into the pen and is collected during pen scraping/cleaning operations. Alternatively, it is taken immediately to the manure stockpiling/composting area. It should never be left in the drains.

3. Elimination of wet patches and potholes in the pens

- Pens are inspected after rainfall and any wet patches or potholes are repaired or noted for repair at the next pen cleaning.
- Any wet or loose material is removed before the pothole or depression is backfilled with moist gravel. This material is rolled and compacted to ensure the pen surface retains a smooth uniform slope.
- At the same time, water troughs are checked for leaks. Any leaks detected are repaired promptly.

4. Removal of feed residues from feed bunks

- Feed residues are removed from feed bunks on a daily basis.
- Spoilt or wet feed is removed from the bunks using a shovel or brush. The material is either thrown into the pen area for removal during pen cleaning operations or is taken straight to the manure stockpiling/composting area.

5. Water trough cleaning

- Water troughs are cleaned at least once a week.
- Troughs are cleaned by
 - checking for any leakages
 - turning off the water supply tap to the trough
 - removing the bung and draining half of the water from the trough, then replacing the bung
 - scrubbing any algal growth and other foreign matter from the sides and bottom of the trough

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- removing the bung and draining the remaining water and foreign material from the trough
- replacing the bung and turning the water supply tap back on
- checking the trough has refilled with clean water.

6. Drain and sedimentation device cleaning and maintenance

- Generally drains should be free of vegetation. Where drains or diversion banks need to be vegetated, the grass should be kept short by regular mowing or slashing.
- Following runoff events, the level of the settled sediment in the drains and sedimentation device is checked. Excess sediment is allowed to dry before being removed.
- The drains and sedimentation device are cleaned using a box-scraper, bobcat, slider blade, front-end loader or an excavator working from the bank. Sediment is removed from the device and the weir and transported to the manure stockpiling/composting area.
- The drains and sedimentation device are checked to confirm that they have a smooth, uniform slope.
- Any potholes or low areas in the floor or walls of the sedimentation device or drains are backfilled and compacted to produce a durable surface.

7. Horse stables bedding management

- The base of the horse stables is bedded with suitable material e.g. sand or sawdust. The bedding is frequently and regularly removed and replaced to ensure dry, low-odour conditions. Removed material is taken to the feedlot manure stockpiling or composting area.
- The bases of the run-out areas are inspected at least quarterly and maintained as needed.

8. Effluent holding pond maintenance

- Following rainfall runoff, the water level in the effluent holding pond is checked.
- Ideally, the effluent is stored within the holding pond for a month to reduce the pathogen load before being irrigated. However, when the effluent level reaches within 1,500 mm of the embankment crest,

it is irrigated provided soil moisture and weather conditions are suitable. The effluent is managed to maintain a minimum of 600 mm of freeboard on the holding pond.

- A depth of at least 300 mm of effluent is maintained in the bottom of the holding pond after irrigations.
- The weirs are routinely checked after runoff events to ensure they are clean and operating properly. The pond walls are inspected regularly to assess their structural integrity, and any signs of problems with either the weirs or the pond walls reported to management for prompt action.
- The depth of sludge in the holding ponds is monitored. When sludge begins to compromise effluent storage capacity (e.g. more than 20% accumulation, typically every 5–20 years), it is carefully removed using a dragline, agitator and pump or excavator. Removed sludge is either spread directly onto land or is taken to the manure storage/composting area for drying before being added to the manure or compost windrows.

9. Manure stockpiling and stockpile management

- Manure is formed into windrows for aging. The windrows are long, low piles with a triangular cross-section, a base width of 3–4 m and a height of 1.5–2 m.
- The windrows are oriented with the long axes perpendicular to the contours of the area to promote free drainage around the manure piles.
- After the manure has been aged for at least six months in a windrow, it can be screened before being utilised or transferred to a stockpile for storage.
- Wet manure or sludge is never added directly to a large manure stockpile. Wet manure solids are formed into low windrows and allowed to dry first. Turning the windrows promotes more rapid drying.

10. Managing fires in manure stockpiles

- Manure fires are difficult to distinguish and can burn for many months, releasing acid odour and smoke. Manure stockpiles are checked for fires on a daily basis so that action can be taken quickly.

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- Except for very small fires, expert advice and assistance on fire extinguishment should be sought.
 - If there is a very small fire in the stockpile, ignited particles can be removed with appropriate machinery (e.g. front-end loader) but *only* if this can be done safely. The ignited particles are then extinguished with water or allowed to burn out.
 - In the event of a manure stockpile fire, details of the event and actions taken are recorded. If the cause of the fire can be identified, this is also recorded and manure management practices modified to prevent a reoccurrence.
11. Manure stockpile area maintenance
- The base and banks surrounding the manure stockpiling/composting area are checked at least quarterly but also after heavy rainfall; the area is maintained as necessary.
 - Any potholes or low areas in the base or bank, or bank weaknesses, are backfilled and compacted to produce a durable surface.
12. Delivery of co-composting materials
- Co-composting materials include any solid matter that will be composted with the manure. These are unloaded on a suitable area within the manure stockpiling/composting pad. If these are not to be immediately mixed with manure, they are formed into windrows with a base width of 3–4 m, 1.5–2 m high with a narrow top and sloping sides.
 - Details of the delivery date, type and quantity of material delivered are recorded.
13. Compost management
- Manure and any co-composting materials are thoroughly mixed and formed into windrows with a triangular cross-section. These are 3–4 m wide at the base and 1.5–2 m high.
 - The moisture content of the composting material is tested. At the ideal moisture content, the compost appears moist and little moisture can be squeezed from a handful. If the material is too dry, water or effluent can be added using the turning equipment, high-pressure jets or micro-sprinklers. Care is taken to ensure leachate is not produced. If the material is too wet, it can be turned every day or two to promote drying.
 - After the windrows are formed, the core temperature and moisture content of the composting material are monitored at least weekly. The results are recorded separately for each windrow.
 - The temperature is monitored by inserting a long probe thermometer deep into ten separate spots along the length of the windrow. Alternatively, a thermistor string can be used.
 - Moisture is monitored by taking a handful of compost from an arm-length depth at ten sites along the windrow. The compost is classed as 'dry' if it appears dry and no water is released when the handful is squeezed, 'wet' if it has water leaching from it without being squeezed, or 'moist' if it appears wet but little moisture comes out when squeezed. 'Moist' is the ideal moisture content.
 - If water is available, material that is 'dry' is watered before turning. Effluent is not used to water windrows after initial windrow formation. Care is taken to ensure the material does not become waterlogged and to avoid excess pooling of water around the compost piles.
 - If material is 'wet', the windrows are turned more frequently (every couple of days) and/or dry co-composting materials incorporated into the pile.
 - The compost pile is turned after high temperatures (>55°C) are maintained for at least three consecutive days. The material is turned at least three times after three days of high temperatures during the active phase. Fortnightly turning is suggested but turning can occur more frequently if the pile has heated sufficiently and equipment and labour are available.
 - The active phase is considered complete when the pile no longer heats up above 55°C after turning. After completion of the active phase, the compost can be kept in a windrow or formed into a stockpile where it is allowed to cure for at least a month.
 - Details are recorded of
 - the date each windrow was formed
 - the materials added
 - results of temperature and moisture content tests
 - turning and watering
 - date active phase is considered complete
 - quantity of compost removed from site.

BEEF CATTLE FEEDLOTS: WASTE MANAGEMENT AND UTILISATION

Mortalities management procedures**14. Mortalities composting**

- Mortalities are promptly transferred to the composting area using equipment that is not used for feed processing. Mortalities are lifted and carried from the pens, not dragged. This is particularly important for infected mortalities.
- Using a front-end loader bucket, spread a 60 cm deep base of absorptive material (e.g. sawdust or waste straw) that will retain fluids released during decomposition. The base should be about 5–5.5 m wide as this will allow two mortalities to be laid side-by-side. If mortalities will be stacked two high, the width should be increased to 7 m. Allow at least 2.5 m of windrow length for each tonne of mortalities.
- Generally, the thoracic cavity will be opened or the rumen punctured. However, this should not be done if the likely cause of death is a zoonosis or infectious disease.
- Mortalities are placed in a single layer on top of the absorptive layer. If the windrow will be two carcasses wide, the spines of the animals are placed in the centre of the pile with the legs on the outer edges.
- The bodies are covered completely with at least 0.6 m of sawdust or manure. A second layer of mortalities can be placed on top with a further 0.6 m of cover material over it. Ideally the cover material will have a moisture content of about 50–60% wet basis. Material with this moisture content will feel moist but it should not be possible to squeeze moisture from a handful of it. If necessary, wet the material with water or effluent.
- Mortality coverage and windrow core temperatures need to be monitored weekly during the active stage.
- Using a long-stemmed thermometer, measure the core temperatures at 10 spots along the windrow. Alternatively, a thermistor string can be used. Temperatures of 50–60°C should be reached within 2–3 days of pile commencement and remain high for at least two weeks.
- Turning of the carcass windrow is recommended only after the organic material has broken down into small particles and the bones partially softened (typically 4–6 months). Turning and watering (if required) is recommended at this stage.

- The active stage is completed when the pile no longer heats after turning. The material will be a dark brown to black humus-like material. Turning is suggested at this point.
- Curing can then occur. Allow a total of 12 months for active composting and curing. To prevent regrowth of pathogens, composted material must be kept separate from uncured material.
- The finished material is screened before spreading to remove remaining bones.

15. Disposal of mass mortalities by composting

In the case of an excessive number of cattle deaths (any substantial increase in cattle mortalities)

- Contact a veterinarian to undertake post mortems.
- Report the mortalities to the relevant environment protection agency and to ALFA who will notify the Chief Veterinary Officer.
- If composting is deemed an appropriate disposal method, follow the previous procedure but take additional precautions if an infectious disease is the possible cause. Do not puncture the rumen or open the body. To achieve high temperatures that are able to kill pathogens as quickly as possible, use a 15–30 cm layer of silage or moist manure then a layer of ground straw as the cover material. Maintaining a good level of cover is crucial. Do not turn the pile during carcass decomposition. Do not excavate or spread compost until approved by the Chief Veterinary Officer. Dispose or use the compost in a manner approved by the Chief Veterinary Officer.
- Where the livestock deaths are not the result of disease, dry porous materials that do not necessarily produce high temperatures quickly can be used as cover material. The pile can be turned after 60–90 days, although this may not be necessary. Excavation and spreading of compost can occur once the soft tissues and internal organs are fully decayed (usually 8–12 months after starting the process) and curing has occurred.
- In many circumstances, the compost will be deemed safe to spread and can be screened first to remove remaining bones.
- In other circumstances, the compost will need to be buried or burnt.

BEEF CATTLE FEEDLOTS: WASTE MANAGEMENT AND UTILISATION

Effluent irrigation procedures**16. Selection of effluent irrigation area**

- When effluent needs to be irrigated, an appropriate utilisation area is selected. This is an area that has not yet received its annual effluent application rate. Areas that are known to have elevated nutrient levels are not to be selected.
- The wind speed and direction is checked to ensure the prevailing wind direction will not carry odours directly towards nearby residences or other receptors. If this is likely, an alternative area may be selected or irrigation delayed.

17. Effluent irrigation

- The weather forecast and the moisture content of the soil are checked. Effluent is irrigated only when the soil is sufficiently dry to absorb the applied liquid and should not occur within 48 hours of heavy rain. Do not irrigate if significant rainfall is expected.
- Plan to irrigate effluent from mid-morning to early afternoon when good odour dispersion is likely. Avoid effluent irrigation from mid-afternoon to evening or just before weekends or public holidays, particularly if close to a public area.
- A suitable rate of effluent irrigation is determined based on the nitrogen, phosphorus and potassium content of the effluent.
- The soil is monitored during irrigation to ensure there is no surface pooling or effluent runoff.
- Staff are advised of the risks associated with effluent irrigation and the appropriate personal protection equipment to use. This may include high quality (P2) face masks, overalls and disposable gloves.
- The irrigation system is set up to apply effluent at the target rate.
- If a travelling irrigator is used, it is checked every two to three hours to ensure it is moving in the correct direction and not creating other issues.
- Details of the following are recorded:
 - date of irrigation
 - weather forecast summary, including wind direction and rainfall

- assessment of likelihood of amenity impacts
- utilisation area (name of paddock)
- target and actual rate of application (mm).

Manure utilisation procedures**18. Selection of manure spreading area**

- A suitable area is selected for manure utilisation. This will exclude areas that have already had their annual allocation of manure applied or that are showing elevated nutrient levels.
- The wind speed and direction is checked to ensure the prevailing wind direction is not directly towards nearby residences or other receptors.
- Staff are advised of the risks associated with manure spreading and the appropriate personal protection equipment to use. This may include high quality (P2) dust masks, overalls and disposable gloves.

19. Manure spreader calibration

- Use plastic drop sheets or tarpaulins of at least 2 m × 2 m.
- These drop sheets are laid on the ground in the path of the spreader (some near the centre, some on the outside so that two side-by-side passes will run over the sheets).
- For each drop sheet, place a 1 m × 1 m wire square over the drop sheet.
- The spreader is passed over the sheets in two side-by-side runs at the usual operating speed.
- Weigh the manure collected from each of the wire squares.
- The weight of manure landing in each wire square (kg/m²) is multiplied by 10 to convert it to a rate in tonnes per hectare.
- The spreader is adjusted if necessary, and the exercise repeated until the spreader is operating at the target rate.

20. Manure spreading

- Check the weather before undertaking manure spreading. Do not spread if heavy rain is expected or if it has fallen over the last 48 hours.
- A suitable manure spreading rate is determined based on the nitrogen,

BEEF CATTLE FEEDLOTS: WASTE MANAGEMENT AND UTILISATION

phosphorus and potassium content of the manure, soil properties and the intended land use of the utilisation area. The rate should be consistent with the ability of soils and plants grown on the area to sustainably use the applied nutrients, salts and carbon in the manure or compost.

- Plan to spread manure from mid-morning to early afternoon when good odour dispersion is likely. Avoid spreading from mid-afternoon to evening. Avoid spreading manure just before weekends or public holidays, particularly if close to a public area.
- Calibrate the manure spreader to ensure it is spreading at the target rate.
- Record the following details
 - date of manure spreading
 - weather forecast summary, including rainfall and wind direction
 - assessment of likelihood of amenity impacts
 - area of application (name of paddock)
 - target and actual rate of application as t/ha.

21. Transport of aged manure and compost

- To minimise the risk of material spillage during transport, loads do not exceed vehicle capacity.
- The load is covered to minimise dust and odour emissions during transport along public roads.
- Where practical, avoid transport routes that have a large number of houses or public use areas close to the road.

22. Manure and compost removal from the site

- When manure or compost are removed from the feedlot site, the following details are recorded
 - the date, quantity and type of waste removed
 - the name of the transporter and/or operator that removed the wastes
 - the intended use of the wastes
 - the destination of the wastes (including the property owner's name and address).
- The recipient of the manure or compost is provided with a 'Duty of Care: Manure Utilisation' sheet.

Procedures following heavy rain

Also refer to the following procedures:

6. Drain and sedimentation device cleaning and maintenance
8. Effluent holding pond maintenance
9. Manure stockpiling and stockpile management
11. Manure stockpile area maintenance
23. Diversion banks and drains
 - All diversion banks, drains and bunds are checked to ensure extraneous stormwater runoff cannot enter the controlled drainage area of the feedlot and the manure stockpiling/composting areas.
 - Any damage to banks, drains and bunds is immediately repaired and details of the maintenance recorded.
24. Manure stockpiling/composting area
 - The manure stockpiling/composting areas are checked to ensure they are freely draining.
 - The layout of the manure or compost pile(s) is checked to ensure they are not blocking runoff and promoting pooling of water. When conditions allow, reconfigure any piles that are impeding drainage.
 - The base of the manure stockpiling/composting area is checked for potholes and other low spots. If necessary, the base is repaired when conditions permit.
 - Details of any maintenance procedures undertaken are recorded.

On-going procedures

25. Fly and vermin management
 - Fly and vermin levels around the feedlot are monitored on an ongoing basis.
 - Vermin baits are used and/or replaced as required.
 - Bait stations are checked on a weekly basis.
26. Dust management
 - Dust levels are monitored on an ongoing basis.
 - Internal roads are watered as required to reduce dust.

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- Where practical, stocking density in pens is increased (to within licence limits).
- Where water is available, dry manure in compost piles is watered before and during turning to suppress dust.

27. Operational recording

- Record details of all cattle introduced to and removed from the premises, including
 - number and live weight of cattle in each pen
 - date of introduction/removal
 - sickness or deaths of animals.
- Record details of routine operating procedures undertaken to prevent or minimise environmental harm, including
 - spilt feed cleaning
 - wet patch elimination
 - repairs to potholes
 - under-fence cleaning
 - pen cleaning and manure removal, storage and utilisation
 - effluent irrigation
 - fly and insect treatment and control
 - maintenance of the controlled drainage area confining the feedlot complex.
- Record details of maintenance works carried out, including
 - drainage channel maintenance
 - diversion bank and dam wall maintenance
 - sedimentation system maintenance
 - maintenance of banks within utilisation areas
 - holding pond maintenance.
- Record details of likely environmental impacts resulting from releases of contaminants into the environment.
- Record details of staff training to enhance environmental management skills and awareness of environmental issues.
- Record details of off-site movements of wastes including the following
 - date, quantity and type of wastes removed
 - name of the transporter and/or operator that removed the wastes
 - intended use of the wastes
 - destination of the wastes (including the property owner's name and address).

28. Staff training

- All staff members are trained to know their responsibilities in regard to environmental management.
- All staff members are trained in procedures applicable to their role.
- Staff members are provided with relevant technical information for reading.
- All staff members are made aware that
 - manure, particularly pen manure, contains pathogens that may cause illnesses
 - fine dust appears to pose the greatest risk
 - health risks can be minimised by adopting good hygiene practices. Always wash hands well after handling manure, compost, effluent or mortalities, especially before touching food, eating utensils, cups, your eyes or other people
 - personal protective clothing and equipment including high quality (P2) dust masks, overalls and disposable gloves provide additional protection.
- Staff members are provided with additional on-the-job training and also participate in appropriate environmental courses, seminars or workshops.

Environmental monitoring and reporting procedures**29. Environmental monitoring**

- Throughout the year, environmental monitoring occurs in accordance with licence or permit requirements.
- Aged manure and/or compost are analysed at least annually before the main spreading season.
- If effluent is irrigated or used to moisten materials before composting, it is analysed at least annually, ideally just before the main usage period.
- If effluent or manure/compost are utilised on-farm, the soils of the utilisation area(s) are analysed at least annually (in the years that they are irrigated with effluent or spread with manure or compost).

BEEF CATTLE FEEDLOTS: WASTE MANAGEMENT AND UTILISATION

- Monitoring equipment, analysis request forms and a supply of monitoring containers and sampling bags are kept on hand.

30. Annual environmental report

- An annual environmental report is prepared that includes
 - summary of pen cleaning
 - soil analysis results for samples taken from any on-farm utilisation area where effluent or manure has been spread in the reporting year
 - analysis results for effluent for irrigation and aged and/or composted manure from the stockpile area
 - summary of the effluent irrigation rate (mm) to each paddock, along with an estimate of the nitrogen, phosphorus and potassium application rate
 - summary of the manure and/or compost spreading rate on each paddock, along with an estimate of the nitrogen, phosphorus and potassium application rate (kg/ha)
 - type of crop, pasture or forage grown on each utilisation area along with an estimate of the harvested yield and the estimated nitrogen, phosphorus and potassium removal rate (kg/ha)
 - records of any manure and/or compost provided to off-site users including the date of the transfer; the name and contact details of the recipient; and the type and amount of material supplied
 - details of any complaints received, communications with the complainant, investigations into the cause of the complaint, any corrective actions taken and any changes to procedures
 - details of any environmental incidents and any associated corrective actions and reporting.

Complaint and incident management procedures

31. Community consultation

- Maintaining open lines of communication with the public is important in dealing with amenity or other issues.
- During feedlot operating hours, a telephone complaints line is operated for the purpose of receiving any complaints in relation to activities conducted at the premises.

- All neighbours are encouraged to make contact if they have any issues or any complaints concerning the feedlot or the manure and effluent utilisation practices.
- Feedlot management informs immediate neighbours of proposed effluent irrigations and manure/compost spreading events or any unusual activities that may result in nuisance.
- Any corrective actions taken in response to a complaint are reported back to the complainant. The complainant is consulted about whether this has eliminated or reduced the source of the complaint.

32. Complaint recording

- Details of all complaints are recorded. These include
 - time and date of complaint/incident
 - method of communication (telephone, fax, email, letter, personal visit)
 - name, address and contact telephone number of complainant (Note: if complainant does not wish to be identified, record as 'Not Identified')
 - wind direction and strength and any other relevant climatic conditions
 - nature of the complaint
 - any management practices that may have contributed to the complaint
 - name of person responsible for investigating the complaint
 - action taken in relation to the complaint and signature of responsible person
 - details of any further communications with the complainant
 - details of notification of the Administrating Authority (if applicable).

33. Incident recording

- Full details of all environmental incidents are recorded, including the following
 - time, date and duration of equipment malfunctions or other operational problems that may have resulted in a direct or indirect impact on the environment
 - any preventative or corrective action implemented
 - any uncontrolled release of contaminants reasonably likely to cause environmental harm
 - any emergency involving the release of contaminants reasonably likely to cause material or serious environmental harm including effluent holding pond overflows

BEEF CATTLE FEEDLOTS: WASTE MANAGEMENT AND UTILISATION

- any substantial increase in livestock mortalities
- any change in management practices which may have resulted in enhanced environmental performance.
- Relevant authorities are notified of any incident reasonably likely to cause environmental impacts, in accordance with licence conditions.

Sample record sheets

- The Complaints Register and the Environmental Data Record are useful environmental management records for feedlots.
- The Complaints Register is used to record details of complaints made by the general public in relation to impacts to community amenity.
- The Environmental Data Record is used to record any items of concern noted during ad hoc or subjective assessments by feedlot staff, as well as any actions taken and the effectiveness of those actions, and any items of concern noted during monitoring or assessment of laboratory analysis or other monitoring information.
- Example copies of the Complaints Register and the Environmental Data Record follow.

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COMPLAINTS REGISTER

Time and date	Method of communication	Complainant contact details	Weather conditions	Details of complaint	Action taken	Name of person responsible	Signature	Which regulatory agencies were notified?*

* Name of officer, agency and date

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ENVIRONMENTAL DATA RECORD

Date	Item	Comment/Action Taken	Effectiveness of action taken	Requirement/ recommendation for changes to procedures	Signature of officer responsible

8.5 REGULATORY SERVICES

Nil

8.6 ASSETS

NiL

8.7 CIVIL WORKS

8.7.1 CIVIL WORKS AND TECHNICAL SERVICES REPORT - FEBRUARY 2020

DOCUMENT NUMBER	322509
REPORTING OFFICER	Shelley Liehr, Executive Assistant - Operations
AUTHORISING OFFICER	Phil McMurray, General Manager
RELEVANCE TO COMMUNITY STRATEGIC PLAN	<p>3. Sustainable natural and built environments: we connect with the places and spaces around us</p> <p>3.2 Our built environments support and enhance liveability</p>
FINANCIAL IMPLICATIONS	There are no Financial implications associated with this report.
LEGISLATIVE IMPLICATIONS	There are no Legislative implications associated with this report.
POLICY IMPLICATIONS	There are no Policy implications associated with this report.
ATTACHMENTS	Nil

RECOMMENDATION

The Civil Works and Technical Services Report for the month of February, 2020 be received

Introduction

This report provides a detailed update of the Civil Works and Technical Services Departments works undertaken for the month of February, 2020.

Discussion

Maintenance grading has been underway on Brawlin Road to repair washouts and surface damage following the January, 2020 storm in that area. Other grading works are currently in progress at Bundarbo and will continue on Cooinnee and Coggans Roads.

Works on the Gap Bridge project in Cootamundra have seen a continuation of the culvert replacements and extensions as determined in the project scope of works. This work is expected to continue until the end of February, 2020 with two more total road closures and detours planned. These works are all funded by Transport NSW. Work on Burra Road has seen the completion of the box culvert and preliminary earthworks.

The works on Muttama Road adjacent to the intersection with Wambidgee Road has now commenced. Works have included drainage, general earthworks and pavement rehabilitation in preparation of an overlay. This project is expected to run into March, 2020 and is funded from the Regional Road REPAIR program.

Boral have recommenced works on the resealing program with sections of the Burley Griffin Way and Olympic Highway underway at the time of preparing this report.

Works on the Cootamundra Netball Courts have seen the pavement constructed and it is now waiting for the asphalt surface to be placed. This is scheduled for late February, 2020.

Gundagai Crews have been undertaking storm damage repairs following the recent storms on various roads within the Local Government Area including Hoares Lane, Darbalara, Cooininee, Tarrabandra and Tumblong Roads.

The stormwater drainage works in Tor Street, Eagle Street, Luke Street and Nicholls Avenue, Gundagai are now complete. During the recent rain, these projects successfully redirected the rainfall away from properties as anticipated. Future works are upcoming on West and South Streets.

Patching, slashing and other general maintenance has been undertaken as required around the whole Local Government Area.

8.8 TECHNICAL SERVICES

Nil

8.9 FACILITIES

Nil

8.10 WASTE, PARKS AND RECREATION**8.10.1 DRAFT WASTE STRATEGY THREE MONTH PUBLIC EXHIBITION**

DOCUMENT NUMBER	321866
REPORTING OFFICER	Wayne Bennett, Manager Waste, Parks and Recreation Services
AUTHORISING OFFICER	Phil McMurray, General Manager
RELEVANCE TO COMMUNITY STRATEGIC PLAN	3. Sustainable natural and built environments: we connect with the places and spaces around us 3.2 Our built environments support and enhance liveability
FINANCIAL IMPLICATIONS	Associated costs for the Waste Strategy.
LEGISLATIVE IMPLICATIONS	There are no Legislative implications associated with this report.
POLICY IMPLICATIONS	There are no Policy implications associated with this report.
ATTACHMENTS	1. Federal Government Consultation Regulation Impact Statement (under separate cover) ⇄

RECOMMENDATION

- 1. Council approve the Draft Waste Strategy (provided to Council at the Ordinary Meeting held 26th November, 2019) be placed on public exhibition for a period of ninety days.**
- 2. A further report on the Draft Waste Strategy containing submissions, if any, be prepared and submitted for the information and consideration of Council.**
- 3. Council approve the preparation of a concept plan detailing the layout of the proposed new material recycling facility, product processing and production areas, landfill and any other associated facilities as identified in the Draft Waste Strategy.**
- 4. All costs associated with the preparation of a concept plan be funded from the Waste Reserves.**

Introduction

At the Ordinary Meeting held 26th November, 2019 Council resolved (Min no. 444/2019) that the Draft Waste Strategy as presented, be adopted in principal and placed on public exhibition for ninety (90) days.

- 1. The Draft Waste Strategy and Business Plan Review Report be received and noted.**
- 2. The Draft Waste Strategy as presented be adopted in principal, and that the Mayor, Deputy Mayor, General Manager, Manager Waste, Parks and Recreation Services, and other stakeholders as identified, enter into discussions with Elouera Association Inc. as soon as possible, and prior to releasing the report to the community for comment and discussion.**
- 3. The Draft Waste Strategy be put on public exhibition for the purpose of community consultation for a three month period from February, 2020 to April, 2020.**

- 4. A Communication Implementation Plan, including the identification of risks, be developed internally prior to the Strategic Plan being released.**
- 5. A report and all associated findings and recommendations from the community consultation process be prepared and returned to Council for review in May, 2020.**

The purpose of the consultation is to seek community feedback on the Waste Strategy prior to its adoption and implementation.

Discussion

Part of the Council resolution, was that Council meet with Elouera to discuss the Draft Waste Strategy prior to placing the Draft Waste Strategy on public exhibition. Elouera was to be provided with a copy of the Draft Waste Strategy Summary for their review and comment. As such, Elouera has been provided with a copy of the Draft Waste Strategy Summary.

The meeting with Elouera and Council, and subsequent site visits of Cootamundra and Young recycling facilities, has been held and the Draft Waste Strategy now ready to be placed on public exhibition.

Prior to the Draft Waste Strategy being placed on public exhibition, staff will prepare a Communication Implementation Plan, targeting prime stakeholders, so as to ensure that the reasons for the strategy are well presented and can be understood. At these meetings, the importance of the Draft Waste Strategy will be explained, highlighting the reasons why the community and industry need to support the document and future management of waste material and product generated within the Cootamundra-Gundagai local government area.

It is recommended that while the Draft Waste Strategy is out for public comment, Council staff prepare a concept plan and preliminary estimates for the layout of the new proposed material recycling facilities, landfill, and proposed product processing and development areas for both Cootamundra and Gundagai for Council's consideration. It would be the intent to use funds from the Waste Reserve to fund any design works required for the proposed concept plan. Council would call for expressions of interest for the proposed design works to ensure the best financial and desired outcomes.

The latest Australian Federal Government's Regulation Impact Statement (attached) addresses the phasing out of certain waste product exports. This will have dramatic impacts on how councils and their communities will need to manage recyclable materials into the future. The Federal Government's decision will also have some impact on the existing waste strategy outcomes as issues develop further relating to this subject.

The results from the intended Federal Government's decision to ban the export of certain recyclable product, may result in councils needing to find alternative disposable solutions for such items as glass and cardboard and the re-education of the community in both local and regional recycling methodologies. This issue has been well covered within the Draft Waste Strategy.

8.10.2 LANDSCAPE CONCEPT PLAN ALBERT PARK (CENOTAPH)

DOCUMENT NUMBER	321870
REPORTING OFFICER	Wayne Bennett, Manager Waste, Parks and Recreation Services
AUTHORISING OFFICER	Phil McMurray, General Manager
RELEVANCE TO COMMUNITY STRATEGIC PLAN	3. Sustainable natural and built environments: we connect with the places and spaces around us 3.2 Our built environments support and enhance liveability
FINANCIAL IMPLICATIONS	There are no Financial implications associated with this report.
LEGISLATIVE IMPLICATIONS	There are no Legislative implications associated with this report.
POLICY IMPLICATIONS	There are no Policy implications associated with this report.
ATTACHMENTS	<ol style="list-style-type: none"> 1. Albert Park Aerial Photo 1 ↓ 2. Albert Park Aerial Photo 2 ↓ 3. Albert Plan Landscape Concept Plan (1) ↓ 4. Albert Park Landscape Concept Plan (2) ↓ 5. Cootamundra RSL Sub Branch - Letter of Support for the Albert Park Landscape Concept Plan ↓

RECOMMENDATION

- 1. Council accept the Albert Park RSL Memorial Area Landscape Concept Plan.**
- 2. Council approve the Albert Park RSL Memorial Landscape Concept Plan.**
- 3. Council approve The Returned and Services League of Australia (Cootamundra Sub Branch) be permitted to use the Albert Park Memorial Landscape Concept Plan, for the purposes of seeking grant funding options for the Landscape Concept Plans development.**

Introduction

Council and the Returned and Services League of Australia (Cootamundra Sub Branch) (RSL) have developed a landscape concept plan within Albert Park to develop a redesign of the memorial area that is more advantageous to the needs of the RSL, Council and the community.

Discussion

Council has been working in conjunction with the RSL to improve the aesthetics and logistics of the War Memorial located at Albert Park. The existing layout is proving difficult when new monuments are required to be erected within the immediate area of the memorial. Due to the expansion of the memorial area, and existing restraints with the area, being neither accommodating nor respectful to the RSL and the community during memorial services, it is now considered that the area is in need of redeveloping to meet the changing needs.

As a result, Council and the RSL have been working together to come up with a design that is more fitting with current demands and meeting future opportunities and needs.

Council and the RSL have prepared a landscape concept plan to present to Council for consideration and approval. The main purpose of the plan at this stage, is to give support to the RSL grant applications which, if successful, the funding to be used to commence the development of the concept plan attached to the report.





LANDSCAPE CONCEPT ALBERT PARK, COOTAMUNDRA L01



LEGEND

- Existing evergreen trees to be retained
Refer to report by Wade Ryan
- Existing trees to be removed within the next 10 years
Refer to report by Wade Ryan
- Existing Rosemary planting around Cenotaph to be retained
- Existing paths retained
- Existing road shown as dotted line removed
- HARD LANDSCAPE**
- Main path
2.0m wide with trachyte or granite
- Cross paths to future memorials in decomposed granite, with trachyte/ granite edging
- Proposed new road/ parking arrangement
- Proposed concrete paths
- Stone entry walls. Refer to photoshop image.

- SOFT LANDSCAPE**
- Proposed deciduous trees:**
Simons Poplar (*Populus simonii Fastigiata*) as an alternative to Lombardy Poplar.
English Oak (*Quercus robur*)
Tree species to be discussed with RSL
- Proposed planting**
Formed, irrigated beds.
Low planting for views through. Species to include:
Rosemary (*Rosmarinus officinalis*/ R. Boules/ R. Blue Lagoon
Native Rosemary (*Westringia Wynyabblie Gem*/ W. Blue Gem/ W.Mund
Veronica (*Hebe Blue Gem*)
- Hedge to form Memorial space**
Formed, irrigated bed.
Silverberry (*Elaeagnus ebbingei*)
- Proposed grass**
Irrigated Buffalo (shade tolerant)
- Bollards
- Lighting Uplight trees and wall
- Seats - Simple timber seats with arm rests.

Notes

1. Remove existing road and awkward intersection. Area to become grassed with additional trees.
2. Stone memorial walls with Rising Sun emblem as entrance to Memorial area.
3. Stone path with Upright Poplar and low planting to define entrance to Cenotaph and Memorials.
4. Possible future memorials or memorial/ donated seats on cross paths.
5. Existing path.
6. Cenotaph.
7. Proposed path connects through to parking, kiosk and playground and back to existing BarBQ.
8. Existing Bar BQ facility retained.
9. Existing playground relocated.
10. Proposed new playground area. Connects to future kiosk/ garden cafe.
11. Upgrade building to include pergola and vines, outdoor seating area for viewing sport and connecting to proposed adjacent playground.
12. Proposed road (one way) connecting through to proposed parking area.
13. Evergreen hedge to define memorial space and to define the extent of any future memorials in the park.
14. Proposed to relocate juvenile Lone Pine to #15.
15. Relocated Lone Pine to line up with existing Stone Pine as the sentinels to the memorial space.

Other

Extent of irrigation unknown. Remove all coppers log barriers and low hanging light.

Disclaimer: This plan has been generated using aerial photography and on site measurements. It is not based on a survey.

CLIENT CGRSC c/o Wayne Bennett
DATE 14.10.19
PROJECT 472

SCALE 1:200 @ A1
REVISION A
STATUS For Comment



PLANTING PALETTE AND CONCEPT IMAGES - ALBERT PARK

L02

CONCEPT



Stone wall to entry



Trachyle path



Simple timber seats with arm rests



Hebe Blue Gem (Veronica) NZ

TREES



Populus simonii fastigiata



Quercus robur (English Oak)



Ulmus parvifolia (Chinese Elm)

MATERIALS AND SHRUBS



Rosmarinus officinalis (Rosemary)



Westringia sp. (Native Rosemary) AUS

Somewhere.
LANDSCAPE ARCHITECTS, DESIGNERS AND DREAMERS

Cootamundra Gundagai
Regional Shire Council

CLIENT CGRSC c/o Wayne Bennett
DATE 04.10.19
PROJECT J472

SCALE NA
REVISION A
STATUS For Comment



The Returned and Services League of Australia
 (New South Wales Branch)
 Cootamundra RSL Sub-Branch



President: Garry P James
 Secretary: Jacqui Vincent OAM JP
 Treasurer: Jacqui Vincent OAM JP

All Communications to be addressed to:
 The Secretary
 Post Office Box 113,
 COOTAMUNDRA NSW 2590

26 December 2019

0 2 JAN 2020

Mr Wayne Bennett
 Cootamundra-Gundagai Regional Council
 PO Box 420
 COOTAMUNDRA NSW 2590

Dear Wayne

RE: ALBERT PARK MEMORIAL PRECINCT CONCEPT

The Returned and Service's League of Australia (New South Wales Branch) Cootamundra Sub-Branch reviewed the concept plans for refurbishment of the War Memorial Precinct at Albert Park.

The members present reviewed the concept drawings at our December meeting and a motion was moved and seconded at the meeting with a 100% majority that the council go ahead and develop the plans. The members absolutely loved the idea and are all for the refurbishment.

Please keep the sub-branch fully informed of the progress and I am prepared to meet with the Shire at any time regarding this. Wayne, there is a Community Service Grant that the RSL Sub-Branch can apply for due by 31 March 2020 and worth up to \$150K. Would you please help me put this together, please let me know when you can meet and I will start working on it.

Our suggestion for a name is: **Albert Park Memorial Gardens**

Please advise.

Yours Faithfully

JACQUI VINCENT OAM JP (NSW116683)
 Secretary/Treasurer/Trustee

P: 0429 693095
 E: cootamundrasb@rslnsw.org.au

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8.10.3 LANDSCAPE CONCEPT PLAN JUBILEE PARK AND CAPTAINS' WALK COOTAMUNDRA

DOCUMENT NUMBER	321887
REPORTING OFFICER	Wayne Bennett, Manager Waste, Parks and Recreation Services
AUTHORISING OFFICER	Phil McMurray, General Manager
RELEVANCE TO COMMUNITY STRATEGIC PLAN	3. Sustainable natural and built environments: we connect with the places and spaces around us 3.2 Our built environments support and enhance liveability
FINANCIAL IMPLICATIONS	A budget of \$40,000 will be required to prepare the Landscape Concept Plan.
LEGISLATIVE IMPLICATIONS	There are no Legislative implications associated with this report.
POLICY IMPLICATIONS	There are no Policy implications associated with this report.
ATTACHMENTS	1. Appraisal of Submissions Jubilee Park and Captains' Walk Cootamundra - Confidential

RECOMMENDATION

1. **The expressions of interest received relating the development of a landscape concept plan for Jubilee Park and Captains Walk (circulated under confidential cover) be received and noted.**
2. **The submission from sala4D be accepted.**
3. **Council allocate \$40,000 available within the Stronger Community Fund for the purpose of developing the Jubilee Park and Captains Walk Landscape Concept Plan.**

Introduction

At the Ordinary Meeting held 27th August, 2019 Council resolved (Min no. 300/2019) to undertake a full review of the current maintenance and future development of Jubilee Park in association with the 'Captains Walk'.

1. **The Manager Waste, Parks and Recreation Services prepare a report on the ongoing management, development and maintenance of the 'Captains' Walk' and Jubilee Park.**
2. **Council allocate \$40,000 from its General Fund for the sculpture and installation of three Australian Cricket Captain Sculptures.**

As a result expressions of interest were called to determine the cost to prepare a Landscape Concept Plan for the combined areas of Jubilee Park and Captains' Walk, Cootamundra. With a cost determined a report was to come back to Council for consideration.

Discussion

Council called for appropriate and well qualified landscape designers to provide submissions, including costs, for the preparation of a Landscape Concept Plan for the combined areas of Jubilee Park and Captains' Walk, Cootamundra for the consideration of Council.

The submissions review and appraisal process has been completed and is detailed in the report circulated under confidential cover for the information of Council.

It is recommended that the submission from sala4D be accepted.

9 MOTION OF WHICH NOTICE HAS BEEN GIVEN

Nil

10 QUESTIONS WITH NOTICE**10.1 QUESTIONS WITH NOTICE**

DOCUMENT NUMBER	322549
REPORTING OFFICER	Marianne McInerney, Personal Assistant to the General Manager
AUTHORISING OFFICER	Phil McMurray, General Manager

RECOMMENDATION

The Questions with Notice from Councillors and related responses from Council officers be noted.

Questions with Notice

The following questions with notice from Councillors have been received with the responses from Council officers provided respectively:

Leigh Bowden – Does the Councillor assigned to any 355 Committee, who is, according to the information presented at January’s Council meeting, a full member of that Committee, have to declare a ‘conflict of interest’ and absent themselves from the discussion and voting on any recommendation put forward by the Committee?

Response from Council Officer – Councillor representatives on s355 Committees are not members of such committees and therefore do not have voting rights. This information is different to that provided in a report to Council at the January, 2020 Council meeting. That information relating to voting rights of Councillors allocated to s355 Committees was incorrect. Therefore, as Councillor (or staff) representatives to s355 Committees do not have voting rights on such Committees they do not have a conflict of interest relating to voting. In their capacity in representing Council they may have a conflict of interest relating to their personal circumstances on items on a Committee Agenda. Such conflicts should be dealt with in the normal manner. The Section 355 Committees Management Manual can be subject to review at any time. At the time amendments are suggested the draft document will be included in a report to be prepared and submitted for the consideration of Council.

11 CONFIDENTIAL ITEMS**11.1 CLOSED COUNCIL REPORT**

DOCUMENT NUMBER	322661
REPORTING OFFICER	Marianne McInerney, Personal Assistant to the General Manager
AUTHORISING OFFICER	Phil McMurray, General Manager
RELEVANCE TO COMMUNITY STRATEGIC PLAN	4. Good governance: an actively engaged community and strong leadership team 4.3 Cootamundra-Gundagai Regional Council is a premier local government Council
FINANCIAL IMPLICATIONS	There are no Financial implications associated with this report.
LEGISLATIVE IMPLICATIONS	To facilitate compliance with sections 10 and 11 of the Local Government Act 1993.
POLICY IMPLICATIONS	There are no Policy implications associated with this report.
ATTACHMENTS	Nil

Note

Council's Code of Meeting Practice allows members of the public present to indicate whether they wish to make representations to the meeting, before it is closed to the public, as to whether that part of the meeting dealing with any or all of the matters listed should be closed.

RECOMMENDATION

- Item 11.2 be considered in closed Council at which the press and public are excluded in accordance with the applicable provisions of the Local Government Act, 1993 and related public interest reasons detailed.**
- In accordance with section 11 (2) and (3) of the Local Government Act, 1993, the reports, correspondence and other documentation relating to Item 11.2 be withheld from the press and public.**

11.2 MAYORAL MINUTE - MAYORAL UPDATE ON THE GENERAL MANAGERS PERFORMANCE REVIEWProvisions for Confidentiality

Section 10A (2) (f) – The Confidential Report contains details of systems and/or arrangements that have been implemented to protect council, councillors, staff and Council property.

Public Interest

Not applicable.

11.3 RESUMPTION OF OPEN COUNCIL MEETING

11.4 ANNOUNCEMENT OF CLOSED COUNCIL RESOLUTION