



Wagga Livestock Marketing Centre

STRATEGIC MASTERPLAN

2015

Executive Summary

This masterplan outlines the Wagga Wagga Livestock Marketing Centre's (LMC) plan for the continued operation and development of NSW's premier livestock saleyard to 2035.

The guiding principle for the development of the masterplan has been to maximise the efficiency of the Wagga Wagga LMC for buyers, vendors, agents, staff and livestock. The masterplan reflects extensive community and key stakeholder engagement and a plan for ongoing stakeholder input.

The value of livestock sold through the LMC was \$387 million in 2015. This included more than 222,000 cattle and 1.85 million sheep. The LMC provides an estimated contribution of \$32.6 million in Gross Regional Product to the local Wagga Wagga regional economy and supports around 212 jobs through direct and flow-on effects.

The LMC is Australia's largest sheep selling centre by number. The sheep yards are respected as a leading example of flow through design and functionality.

The LMC is also a prime cattle sale yard. It offers ring selling for cattle and is unmatched nationally in throughput efficiency and yard operations.

Few changes are required from a management and operational point of view, as the facility is efficient and well run.

The LMC requires a whole of precinct masterplan to ensure it has in place the planning and capacity to support expansion and retain its status of one of Australia's leading livestock selling centres.

The masterplan contains a development plan, which outlines the infrastructure required for the LMC to accommodate changes in environmental, animal welfare and work health and safety legislation and future livestock growth scenarios as well as internal and external pedestrian, livestock and traffic movements. The overarching objective of the masterplan is to position the Wagga Wagga LMC as the *premier livestock selling centre in south eastern Australia*.

The recommendations within the masterplan serve to increase safety and efficiency as well as enhance traffic and freight accessibility and broader market appeal.

The medium-longer term drivers of the industry include rising demand, constrained global supply and increased livestock trade. These drivers support a favourable outlook for

the livestock/ saleyards sector. Shorter term drivers including a falling Australian dollar and reduced industry price pressures are also positive for the sector.

It is anticipated both sheep and cattle throughput will grow at the LMC over time – this is based on the broader market expectations described above and discussed with local stakeholders. The masterplan is designed to cater for this growth in a staged, demand driven fashion, with medium to long term works triggered by observed need.

To support growth and ensure the Wagga Wagga LMC retains its status as the premier selling centre in south eastern Australia, key infrastructure requirements and recommendations include:

- Expansion of cattle and sheep selling areas, but retaining the current design
- Overhead walkways and clearer pedestrian markings for enhanced safety
- Separation of heavy and light vehicle traffic
- Waste management recommendations
- Continue to monitor the return on investment provided by the facility in conjunction with market position
- Continuation of the annual pricing reviews in line with market conditions and anticipated forward capital works plans/ requirements.

The realisation of this masterplan will ensure the prosperity of the Wagga Wagga LMC well beyond 2035.

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Introduction

Developing a masterplan is a dynamic process required to optimise the use and future value of assets within local government. Masterplans for Council assets must evolve as markets and technologies change and new operating environments are experienced.

This is the first strategic masterplan for the Wagga Wagga Livestock Marketing Centre (LMC). It incorporates and responds to the requirements of the Integrated Planning and Reporting Framework to ensure appropriate business planning and linkages to Council's other strategic documents such as the LMC's Business Plan and Strategic Asset Management Plan (SAMP).

This report has been developed based on extensive research, analysis, key stakeholder engagement and input from Council officers and elected representatives.

Wagga Wagga Livestock Marketing Centre

The Wagga Wagga Livestock Marketing Centre (LMC) is NSW's premier cattle and sheep selling centre. The LMC was established in 1979, and is within 15 minutes of the Wagga Wagga city centre. It has played a significant role in the economic development of the City of Wagga Wagga and the broader region.

The LMC has a current throughput of more than 200,000 cattle and approximately 1.8 million sheep, representing over \$387 million in transacted livestock values.

The LMC provides an estimated \$32.6 million in local Gross Regional Product and supports around 212 local jobs through direct and flow-on economic impacts.

The LMC is respected as one of the best sheep selling facilities in Australia and the most efficient circular selling facilities for cattle. However, the facility is in need of upgrades including additional drafts, additional stacking and receiving pens, redesign of the cattle selling ring (for safety and throughput), a new outer circulating road and new carparking (for both light and heavy vehicles). The facility also requires some potential future improvement in the form of upgraded security, and rubber flooring in the cattle facility stacking pens.

These upgrades will secure the facility's position as one of Australia's and NSW's premier livestock selling facilities. Thereby ensuring the future growth and development of the LMC business.

Purpose of the Masterplan

The purpose of the masterplan for the Wagga Wagga LMC is to:

- Demonstrate the ability of the LMC to accommodate sustainable growth and ongoing development in the livestock sector
- Clearly communicate the requirements and needs of the LMC to retain and grow its position as a leading livestock selling centre
- Provide clarity and show commitment to customers and staff regarding the LMC's current and future land use, infrastructure requirements and operational matters.

Masterplan Process

Research	<ul style="list-style-type: none">• Existing information• Situation analysis• Facilities benchmarking• Site inspection
Engagement	<ul style="list-style-type: none">• Agents• Buyers & vendors• Transporters & contractors• Council
Business Review	<ul style="list-style-type: none">• Operational Plan• Asset value• Pricing Assessment• Strategic Asset Management Plan
Documentation	<ul style="list-style-type: none">• Strategic masterplan• Economic impact• Capital expenditure estimates• Facility logistics

Source: AEC

Significance of the LMC

Extensive engagement was undertaken with key stakeholders regarding the LMC masterplan. This included a series of individual meetings with industry stakeholders, council staff as well as the LMC User Group Committee and on site contractors. An intercept survey was also facilitated that captured 129 valid surveys from LMC users across buyers, agents, vendors and transport providers (indicating a confidence level of approximately +/- 7.8% at 95% confidence interval). Utilising Input-Output (IO) modelling, the economic activity and net contribution to the Wagga Wagga Regional economy was estimated.

Vision

"Australia's most efficient, safe and effective livestock marketing centre"

LMC User Group

Efficiency

The efficiency gains delivered through the management, administration and minor facility works of the LMC in the recent past is impressive. For example, cattle throughput on large sale days has increased by over 100 head per hour between 2012 and 2015, going from 464 to 575 head per hour.

Efficiency and innovation has been a hallmark of the LMC. The relocation of the facility from Travers Street site in 1979 to incorporate a ring selling approach facilitated the move from three sale yards to one. This has become the cornerstone of the LMC's market strength.

Economic Significance

In 2014/15 the LMC processed more than 222,000 cattle and 1.85 million sheep, yielding a total value of \$387 million in livestock transactions.

The activities associated with the LMC are also estimated to drive approximately:

- \$5.0 million in operational activities of the LMC
- \$19.0 million in agents fees
- \$4.7 million in associated retail and wholesale expenditure by people who attend the sale days that would not be expected to occur without the LMC.

The impact of this direct expenditure is shown in Table 1 and highlights the fact that activities associated with the LMC supported \$32.6 million in GRP to the local economy in 2014-15 and 212 jobs.

Table 1. Economic Contribution of Wagga Wagga LMC to Wagga Wagga Regional Economy, 2014-15

Impact	Direct	Flow-On	Total
Output (\$M)	\$28.7	\$34.8	\$63.5
Gross Value Added (\$M)	\$14.2	\$18.4	\$32.6
Incomes (\$M)	\$8.9	\$8.6	\$17.5
Employment (FTEs)	88	125	212

Note: Totals may not sum due to rounding.

Source: ABS (2015), ABS (2013), ABS (2012), Wagga Wagga City Council (unpublished¹), Wagga Wagga City Council (unpublished²), AEC Wagga Wagga LMC Saleday Visitor Survey, AEC.

This activity is generated solely as a result of the presence and operation of the Wagga Wagga LMC, and would not be expected to occur within the Wagga Wagga regional economy without the facility.

Factors Influencing Growth

Within the broader livestock industry, the saleyards sector is sensitive to factors influencing the volume of livestock produced, with market prices and product quality also impacting upon saleyard revenues.

The medium-longer term drivers of the industry include rising demand, constrained global supply and increased livestock trade. These drivers support a favourable outlook for the livestock/saleyards sector. Shorter term drivers including a falling Australian dollar and reduced industry price pressures are also positive for the sector.

Climate variability will continue to have a considerable impact on the sector from year to year, influencing both the number and quality of livestock supplied.

The Australian livestock industry has endured challenging conditions over the past five years. Severe drought has impacted key production areas, the temporary ban on live exports to the Indonesian beef market, and a persistently high Australian dollar reduced the industry's international competitiveness.

The industry is highly sensitive to international market factors, with around 70% of beef, 60% of lamb, and 95% of mutton produced for export (MLA, 2014a). Prices are impacted by global market factors regardless of whether or not the product is destined for export or domestic consumption.

Other factors including volatility of key input prices (e.g. fuel, electricity, labour, and feedstock) have also impacted the Australian livestock industry in recent years. Labour cost increases have been a key constraint in both the direct livestock sector as well as downstream meat processing, as both sectors have competed for skilled and semi-skilled labour with the previously 'booming' mining industry.

Despite challenging conditions, a number of key drivers are expected to provide a solid base for industry growth over the coming years. Global protein consumption growth driven by rising emerging market populations and growing personal incomes, and the further development of high value market niches such as Wagyu beef and organic produce are all key positive industry drivers.

The livestock sector will also be a key beneficiary of the China-Australia Free Trade Agreement. The gradual removal of tariffs

across the red meat and livestock sectors is expected to generate an additional \$270 million per annum in beef production, \$150 million per annum in sheep meat production, and around \$300-\$400 million per annum in sheepskin and cattle hide trade (MLA, 2014b).

Likewise, the outlook for meat value chain input cost factors appears to be lining up favourably for the sector going forward. Key commodity prices have fallen considerably over the past year, as increased global supply levels and a subdued global economy have combined to reduce resource commodity prices.

The associated reduction in resource sector activity is also likely to reduce labour cost pressures for the general labour market, but particularly the agriculture sector where there is a high degree of skill transference, over the short to medium term.

The outlook for a weaker Australian dollar is also expected to improve industry competitiveness. The Australian dollar has fallen nearly 30% from its 2011 peak against the US dollar (and a more moderate 19% against the trade weighted index).

Overall the market outlook for the Australian livestock industry is strongly positive. Particularly over the medium to long term. However, it remains subject to several significant domestic and international uncertainties including rainfall levels, pest and disease outbreaks, and future trade relations.

Table 2: Summary of Key Factors Influencing Growth and Outlook

Factor	Outlook
Global Factors	
Global Meat Consumption	Strong due to emerging market population and income growth
Global Meat Production	Constrained due to reduction in agricultural land and climate variability
Trade Relations	Strong subject to ongoing negotiations and commitment to freeing trade
Pests/Diseases	Uncertain subject to international standards and regulations
National Factors	
Australian Dollar	Softening due to falling interest rates and a weakening commodity cycle
Input Prices (Fuel, energy, feedstock)	Softening due to rising supply levels combined with modest global growth
Labour Costs	Pressures easing due to a soft labour market and reduced demand from the resources sector
Market Prices	Gross value of livestock to increase in the short term, reflecting higher farm gate prices as herd and flock rebuilding
Pest/Diseases	Uncertain subject to local/Australian standards and regulations
Local/ Regional Factors	
Rainfall/Growing Conditions	Uncertain with increasing risk of variability
Pest/Diseases	Uncertain subject to local/Australian standards and regulations, with any national disease outbreak likely to impact the market for local production
Overall Market Outlook	Strong subject to key production and market uncertainties

Source: AEC

Current & Future Demand

The LMC auctions between 120,000-225,000 head of cattle and 1.5-2.0 million head of sheep each year. There is significant variation in sales numbers between individual sales and years due to market and seasonal growing factors. Overall, the LMC has experienced a growing trend in livestock numbers.

The LMC has registered solid monthly median sales growth over the past three years, averaging over 14% per annum from 2010-11 to 2013-14 (see Figure 2.1). This is due to the recent climatic conditions, but also due to a number of smaller regional selling centres reducing their market participation, providing a greater market draw for the LMC. The growth of approximately 1% per annum long run growth scenario could be considered conservative. Where growth is stronger than projected, subsequent stages of the masterplan may be brought forward.

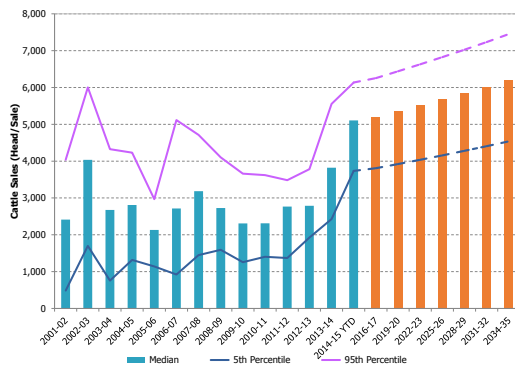
Cattle Throughput

Median cattle sales at the LMC have historically averaged 2,000-4,000 head per sale, with the 95th percentile of sales attracting 4,000-6,000 head. Sales volumes have displayed a strong growth trend since 2010-11, with median sales of over 5,000 head over the first half of 2014-15. The highest sale on record was in January of 2015 with 7,054 head sold (value of \$6.4 million). Going forward, at a national level, growth is expected to average 1% per annum (IBISWORLD (2015)).

Sheep Throughput

Sheep sales at the LMC typically attract 30,000-40,000 head, with the 95th percentile of sales attracting between 40,000-60,000 head of sheep. Average sales numbers have been steady over time, with a solid recovery in average sales volumes since 2010-11. The highest sale on record was in October of 2010 with 72,212 sheep sold (value of \$2.3 million). Going forward, at a national level, growth is expected to average 0.9% per annum (IBISWORLD (2015)).

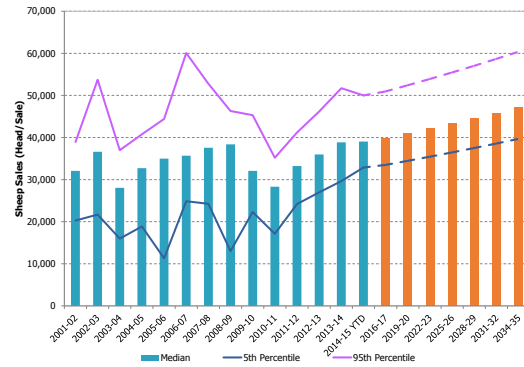
Figure 1: Cattle Throughput (Head/Sale)



Source: Wagga Wagga City Council (Unpublished), IBISWorld (2015), AEC

Over 2014-15 26.9% of the cattle sold were sourced from the Wagga district, followed by Gundagai (20.9%). Narrandera, Hume and Cooma all presented between 5% and 8% of cattle sold with Young, Yass, Hay, Goulburn and Condobolin between 2% and 5%.

Figure 2: Sheep Throughput (Head/Sale)



Source: Wagga Wagga City Council (Unpublished), IBISWorld (2015), AEC

Over 2014-15 35.6% of sheep sold were sourced from the Wagga district with 13.3% sourced from Gundagai. Hume, Young, Yass and Narrandera all presented between 5% and 7% of sheep sold, with Cooma, Condobolin, Albury, Urana, Bombala and Goulburn presenting between 2% and 5%.

Current Facility Capacity

Examining the historical and future sale day throughput, it is apparent the current facility is operating well in excess of its initial design capacity, which stakeholders indicated was 2,700 head of cattle and 27,000 head of sheep.

Future Facility Capacity

Projections of baseline industry trends indicate a future longer term potential throughput (rather than standing) capacity of 8,500 head for cattle and 60,000-70,000 head for sheep. This future capacity is facilitated within the masterplan.

Detailed engagement and discussion with industry stakeholders highlighted the need for a staged approach. It was identified a throughout capacity for cattle of 5,500 head and 45,000 head for sheep is required in the very short term to meet current usage levels and ease pressure points.

Staging of Capacity Development

For the purpose of the masterplan the following throughput capacities/ provisions are recommended for the staged development of the LMC:

- Immediate:
 - 5,500 head of Cattle
 - 45,000 head of Sheep
- Medium term:
 - 6,500 head of Cattle
 - 55,000 head of Sheep
- Longer term:
 - 8,500 head of Cattle
 - 70,000 of Sheep

It is critical that throughput is monitored and the timing of the next stage/ capacity upgrade is sufficiently responsive to ensure efficient and effective infrastructure development of the LMC market is maintained.

Other Medium-Long Term Needs

In the medium to long term the facility also requires:

- Augmentation of water treatment capacity
- Additional cattle and sheep draft, stacking and delivery pens
- New loading ramps (in and out)
- New truck and car parking areas.

Other facilities and infrastructure that should be investigated and considered include rubber flooring and covering (e.g., retractable sails) the yards. It is recommended these be subject

to a package of research to understand the relative benefits and improvements delivered through these potential works.

Site Layout & Facilities

The LMC is the premier livestock selling centre in Australia for the marketing of cattle, sheep and lambs in southeast Australia. Established in 1979, the LMC has led the way in livestock sales for over 35 years. Ring selling of cattle in Australia was pioneered in Wagga Wagga at the LMC.

The centre offers both cattle (store & prime) and sheep and lamb sales each week. The LMC is a market leader in sheep and lamb sales.

Key Facilities

The Wagga Wagga sheep and lamb market is considered to be the best in Australia and the cattle ring selling facility is recognised as one of the most efficient selling centres in Australia. The design of the LMC allows the consistent and smooth flow of stock through both the sheep and cattle facilities.

Good presentation of livestock is facilitated by the open design of the selling pens in the sheep yards. The lamb portion of the sale commences at 8am with the sheep portion being sold at the completion of the lamb run. The sheep yards consist of a number of drafts, stacking/ selling pens and delivery pens.

Consisting of a number of drafts, stacking/ selling and delivery pens the cattle market is impressive with current yardings exceeding 4,000 to 5,000 head on a regular basis.

The cattle selling yard is currently under stress. Current throughput consistently exceeds the 2,700 head for which the facility was designed and constructed. This results in long and stressful working days for producers, agents, buyers, transport agents and LMC staff and contractors alike. The longer days have also resulted in stock being held for longer than is desirable.

In 2014 additional delivery pens were constructed on the north-western side of the main cattle yard to help alleviate stress on the yard. Additional delivery pens are also being designed in the north-west corner of the site. However, further additional capacity is required.

The sheep yards are also occasionally under pressure. However, the current and most acute pressure point and short term call for action is centred on cattle selling capacity.

The yards are supported by a variety of infrastructure including a selling ring, weighbridge, canteen and meeting room, administration and agent offices, public amenities, light and heavy vehicle parking, spelling yards, AVData truckwash and effluent sedimentation ponds.

Surrounding Land Use

The Wagga Wagga LMC is located about a 15 minute drive north-east of the Wagga Wagga CBD in the Bomen Business Park – a planned high-quality and nationally renowned transport and logistics hub. The LMC is located within both the General Industrial Zone (IN1) and Light Industrial Zone (IN2) as designated by the Wagga Wagga Local Environmental Plan 2010 (WWLEP 2010).

The site is adjacent to the rail line connecting Melbourne and Sydney and has excellent access to the State and National road network. Currently, load limitations on Eunony Bridge limit access for certain vehicle configurations.

The upgrade of Eunony Bridge is vital infrastructure if Bomen is to become a regional centre for industry, transport and logistics.

Upgrading Eunony Bridge will also ensure heavy vehicles can bypass Wagga's urban areas.

The LMC has sufficient land areas to accommodate the anticipated growth outlined in this masterplan. However, the interaction with surrounding land uses is an important consideration for the future development of the LMC. An overview of land uses and zonings (designated by WWLEP 2010) surrounding the LMC is provided below.

General Industrial Zone:

- Bomen Business Park (south west) includes many light industrial and agri-business operations, waste is treated at the Bomen Industrial Sewerage Treatment Facility (BISTF) (west)
- Disused rail siding - strategic planning for the Riverina Intermodal Freight & Logistics (RIFL) Hub uses this corridor for the alignment of the proposed road linking the Bomen Business Park to the RIFL Hub to the north and rail underpass

- An area of land, currently used for rural purposes, is potentially available for industrial development (east).

Primary Production:

- Agricultural, primarily cropping and grazing (west).
- Land to the north of the site is largely undeveloped with rural uses, although the WWLEP (2010) designates this land for industrial uses.

Safety & Security

Good security enables the identification of livestock movements, improves driver safety, protects people and property and provides a secure work area for transport operators and other site users.

A good security system also helps saleyard operators meet current work health and safety and driver fatigue management guidelines.

Best practice security requirements at a livestock selling facility typically include:

- Security fencing to prevent trespassing and escape of stock
- Monitored entry and exit gate system to control and regulate access to the facility
- CCTV to deter potential vandals, thieves and trespassers
- Regular Security Patrols to deter potential vandals, thieves and trespassers.

Opportunities to enhance safety and security at the Wagga Wagga LMC include:

- Construction of security fencing around the extent of the facility excluding vehicle movement areas
- Installation of an entry/ exit gate to monitor, record and regulate site access
- Installation of additional security cameras to monitor site access, treatment of livestock, LMC facilities and personal safety.

Work Health & Safety

Work health and safety is of primary importance at any workplace, particularly those workplaces where increased risks are present within the scope of normal operations. The Wagga Wagga Livestock Marketing Centre was inspected and assessed with regard to the *Work Health and Safety Act 2011* (NSW) to identify any areas of non-compliance and recommend improvements. The level of work health and safety at the LMC is considered to be good, however, as with all facilities of this nature, it is not unexpected that independent review has identified opportunities for improvement.

WH&S Requirements

Work health and safety in NSW is principally governed by the *Work Health and Safety Act 2011* (NSW) and the *Work Health and Safety Regulation 2011* (NSW). This legislation is supported by WorkCover NSW's *Compliance policy and prosecution guidelines*, which supplements the *National compliance and enforcement policy*. Under this legislation and associated guidelines Wagga Wagga City Council, as the operator of the LMC, is considered a *person conducting a business or undertaking* (PCBU). Wagga Wagga City Council is responsible for the health and safety of workers, contractors, visitors and anyone else who might be put at risk by the business or undertaking.

Plans, procedures and systems are required to address and respond to a broad range of accident and incident reports, equipment and infrastructure maintenance procedures, processes to manage emergencies and hazardous substances, as well as the safety of staff and third party site visitors.

WH&S Overview

Work health and safety procedures and practices at the Wagga Wagga LMC were observed/ reviewed during site visits (week beginning 16 February 2015). During the inspection, a variety of work health and safety matters were assessed.

The overall work health and safety at the Wagga Wagga LMC is considered to be good. Opportunities to enhance work health and safety at Wagga Wagga LMC centre exist in the following areas.

Infrastructure

- Facilitate non-discriminatory, all person, all weather access
- Investigate transeiving communications infrastructure throughout the remote areas of the LMC.

Equipment (first aid and emergency)

- Ensure user manuals and safety instructions are conveniently available for all equipment
- Ensure all equipment is regularly maintained and checked in accordance with manufacturer specifications
- Review and ensure the number of trained first aiders present amongst LMC staff and users is in line with requirements.

Operations

- Truck laydown in the designated truck laydown area should be stringently enforced to ensure vehicle movement areas are clear at all times
- Restrict small vehicle access to southern driveway access only and install give-way signage (temporary measure while masterplan is implemented)
- Demarcate a walkway from the carparking area to the saleyards office/canteen area (including a pedestrian crossing)
- Add raised walkways, where necessary, to ensure agents, contractors and LMC staff can complete required tasks without entering the laneways and pens with cattle
- Redesign the selling ring to ensure no people are required to enter the ring to guide cattle
- Further enhance systems to identify aggressive cattle
- Implement a voluntary worker and LMC user immunisation program to minimise the risk of Q-fever and other infection risks
- Restrict access to the LMC site to only site users and invited members of the public through the installation of a site security gate.

Environmental Compliance

A best practice livestock selling centre should be compliant with the environmental and bio-security legislation applicable to its operation. In NSW this involves legislation administered by the NSW Environmental Protection Authority and the NSW Department of Primary Industries.

The Wagga Wagga LMC was inspected and assessed in terms of its compliance with relevant environmental legislation and its implementation of a bio-security strategy. The Wagga Wagga LMC is identified to be an environmentally compliant facility with good bio-security procedures.

There are many factors that contribute to an environmentally compliant livestock selling facility. Of those factors, several are essential if environmental nuisance or harm is to be mitigated. The most important of these are the management plans and strategies as listed below:

- Water recycling/harvesting
- Waste management, treatment and disposal (including dead stock disposal procedures)
- Truck washing facility
- Efficient effluent and stormwater management systems (including the separation of contaminated water and non-contaminated water to ensure cost effective water treatment)
- Animal Welfare
- Noise and odour nuisance (internally and externally).
- Prepare and implement a waste management plan
- Water recycling/ harvesting options could be investigated and implemented where practical
- Opportunity to install soft flooring to cattle yards
- Undertake regular sampling of effluent ponds.

The Wagga Wagga LMC is identified to be performing adequately in terms of its environmental compliance. The saleyards are extremely clean and well-kept, pens are cleaned out frequently and efficiently and a publicly available pollution incident response management plan is in place. Few complaints about environmental nuisance have ever been received and discussions with site management indicate the LMC has never had an environmental harm incident reported to the EPA.

Increasing stock throughput will increase the strain on current infrastructure. This may contribute to increased risk of environmental harm or nuisance. The following represent opportunities to enhance the environmental performance of the LMC and reduce/ mitigate areas of environmental risk:

- Improve solid waste separation in the effluent and stormwater drainage system (i.e. sludge pits).
- Contaminated water should be separated from non-contaminated water where practical

Movements & Flow

Logical traffic, stock and pedestrian movement and flow is critical at livestock selling centres to ensure efficiency and safety. All site users require adequate and safe manoeuvring areas. 'Bottlenecks' and unsuitable intersections or accesses create delays and increase the risk of accident and bruising and generally deleterious animal welfare.

During the site visits traffic, pedestrian and livestock flow were observed at the Wagga Wagga LMC, areas of concern were identified and improvements have been suggested.

Traffic Movements

Existing Flow and Composition

Traffic at the saleyards site is composed of both light and heavy vehicles. The majority of light vehicles are B99 vehicles (AS2890.1) being 4WDs with high wheel clearance and utility vehicles. Heavy vehicles are primarily composed of medium size 'farm' vehicles (i.e. truck cab with 12.5m trailer) and large stock vehicles utilised by the transport operators (i.e. truck cab with 18.8m trailer). B-Doubles (36.5m) also frequently access the site. However, current load restrictions on Eunony Bridge mean B-Double vehicles do experience some restrictions. In the future, B-Triples (53.5m) are expected to access the site and the traffic layout makes provision for this within the masterplan.

At present both light and heavy vehicles enter in the south-east corner of the site from Webb St via Lewington St. There is also an alternate light vehicle access directly north of Lewington Street. Heavy vehicles then turn left and circulate clockwise around the site utilising the load-in ramps, truckwash and delivery ramps as required. They then exit the site via the Webb street crossover. Heavy vehicles currently have a lay down area at the heavy vehicle parking in the north-west corner of the site.

Light vehicles on the other hand turn left (when entering in the south-east corner), circulating clockwise until they turn right to enter the light vehicle parking area between the cattle and sheep yards. Alternatively, light vehicles utilise the light vehicle access north of Lewington Street in the centre of the site, turn right and then left to enter the light vehicle parking area. Light vehicles are then able to exit the site at either of these entrance/ exits to Webb Street.

Proposed Flow and Composition

It is proposed that all heavy and light vehicle traffic enter and exit the site from a new two-way access road in the site's north-east corner, which aligns with the Riverina Intermodal Freight and Logistics (RiFL) hub project, and the construction of the Bomen Link Road. Access and exit from the site will be controlled by access gates. Should this road upgrade be delayed, the masterplan traffic flow will simply continue from the current entry points.

Heavy vehicle traffic will continue to circulate clockwise throughout the site with line marking and signage installed to direct traffic through and to specifically designated use areas (i.e. heavy vehicle parking, no standing, heavy vehicles only etc).

Light vehicles may also continue to enter and exit the site via Webb Street with entry via the existing crossover north of Lewington Street and exit via the eastern or western end of the new carparking area. The new carparking area will be line marked in accordance with AS2890.1 and provide carparking for up to 270 light vehicles.

These amendments and improvements will ensure vehicle manoeuvring areas are adequate and fit-for-purpose, traffic flow is efficient, logical and easily understandable by users. Circulation and parking areas are utilised only for limited purposes and, as a result, potential vehicle conflict points are minimised. Key points of note resulting from these changes:

- The heavy vehicle parking area in the north-west corner of the site is to be expanded to cater for a greater number of and larger heavy vehicles.
- Layback kerbing is also to be installed to all ramps in the load-in area.
- Separation of heavy and light vehicles will enhance safety.

Pedestrian Movements

Existing Pedestrian Flow

Pedestrian movement to/ from and around the site is limited, as most persons arrive by vehicle. Once at the site, it is vital that safe and efficient pedestrian movement around the site be facilitated for all visitors.

The movement of people around the site is currently primarily facilitated through a combination of user logic and some signage.

Raised walkways provide pedestrian access to areas too dangerous to traverse on foot. However, the extent of these walkways is limited. While no 'near misses' were observed during the site visit and the LMC retains a good safety record, the potential exists for pedestrian/ vehicle and stock (crossing laneway on entry to the selling centre) conflicts.

Proposed Pedestrian Flow

The proposed flow of pedestrians at the Wagga Wagga LMC has been designed with necessity, usability and safety in mind. Clearly delineated paths of travel for pedestrians should be marked from all parking areas to the site service area and between the service area and the cattle/ sheep yards, including spelling pens. This delineation will encourage pedestrians to restrict all movements to those areas suitable and safe.

The extent of raised walkways should be increased. This would include the construction of new raised pedestrian walkways:

- From the end of the new access road off the northern part of the outer circulating road to the site service area
- Elsewhere as necessary to ensure agents, contractors and LMC staff can complete required tasks without entering the laneways and pens at the same time as cattle.

In line with suggested enhancements in the work Health and Safety, the LMC should support non-discriminatory, all person, all weather access.

Stock Flow

Existing Stock Flow

Stock flow throughout the LMC is characterised by logical flows from load-in/ drafting pens to stacking pens to delivery pens. In the case of cattle, the stock pass through the selling ring between the stacking and delivery pens.

When operating at design capacity the stock movements are very efficient and require minimal double handling. However, when stock numbers exceed the practical capacity of the facility (currently at almost every sale day) double and sometimes triple handling of stock is required and bottlenecks are created.

Proposed Stock Flow

The existing stock flows are functional and should undergo minimal alteration. However, several opportunities exist to enhance the efficiency of operations and improve safety. These include:

- The phased construction of additional drafting, stacking and delivery pens to eliminate the need for double and triple handling of stock
- The removal of latent pens around the weighbridge
- Redesign of the selling ring to facilitate faster stock movement through the ring
- The construction of a fan draft on exit from the selling ring to reduce bottlenecks for the delivery pen area.

Incorporation of the above measures are designed to enhance the efficiencies observed within an already highly efficient stock flow operation.

Financial Plan

The LMC has the financial capacity to fund the proposed immediate and medium term works primarily through the use of reserves, with long term works reliant on external loan funding.

However, the development of these works (along with the level of demand) will have implications for the financial position of the LMC and in particular in relation to pricing requirements for fees and charges. Appropriate pricing structures are critical to ensure any additional lifecycle costs can be recovered, whilst still ensuring adequate operating surpluses are retained.

From an ongoing lifecycle cost perspective, costs incurred for maintenance, renewals, depreciation charges and loan interest/ repayments will impact on the financial sustainability of the LMC and will need to be recovered through fees and charges revenue.

The LMC can continue to apply price increases in the short term to reflect CPI cost inflation and capital needs. Once a decision is made on the need for these medium and longer term works, an appropriate funding strategy and an adjusted price path can be applied to reflect this need.

Longer term pricing strategies need to consider the following scenarios:

Low Case (No growth and only the immediate works only): 4.0% per annum increase in throughput fees and charges required through to 2021/22.

Base Case (Growth of 1.0% for cattle and 0.9% for sheep, with both the immediate and medium term works): 3.6% per annum increase in throughput fees and charges required through to 2021/22.

High Case (Strong future growth of 4.6% per annum and all masterplan works required): 2.4% per annum increase in throughput fees and charges required through to 2021/22.

The base analysis assumes constant commodity prices. A scenario is included that examines the impact on the operational surplus of the LMC should enhanced commodity prices prevail.

Capital Costs and Funding

The following dot points summarise the capital costs associated with the immediate and medium term works and include consideration of planning and professional fees, construction and contingency (they exclude inflation):

- Immediate works: \$4 million to \$6 million
- Medium term: \$5.5 million to \$10 million
- Longer term: \$9 million to \$15 million

Given the uncertainty over the need and timing for the longer term upgrades, they have not been included for further detailed financial analysis.

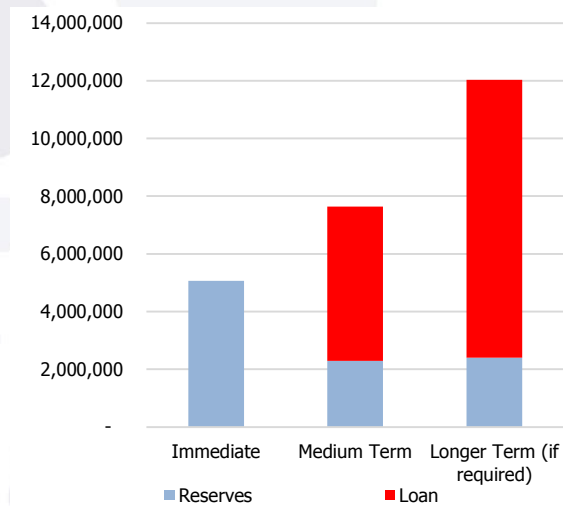
Using the financial projections contained within the *LMC Business and Operational Plan* (AEC, 2015), an assessment has been made of the available funding sources for the immediate and medium term works, which are considered in the analysis. The key points relevant are:

- The LMC Cash Reserve had a balance of just over \$6.5 million at 30 June 2015
- \$600k for the cash equivalent to depreciation is being returned to reserves to fund future renewals work

- Net operating surpluses (after dividend) are generating just over \$400,000 per annum to supplement the cash reserve balances
- Consequently, there is adequate cash to fund all the short term works and 30% of the medium term works
- In the absence of contributions from Council or grants/ subsidies from State or Federal Government, the \$5.3 million shortfall (before inflation) will need to be funded from loan borrowings
- If the longer term works are required before the end of the 10 year planning period, then reserves will only be replenished enough to fund 20% of the cost with the remaining 80% to be funded via loans.

The following chart summarises the funding requirements for each stage.

Figure 3: Funding Sources for Capital



Note: Amounts exclude inflation
Source: AEC

Operating Cost Implications

Maintenance

In line with industry standards on maintenance expenditure, it is recommended maintenance costs be provided for at a rate of 2% of capital costs annually. This equates to an increase to annual maintenance costs of \$254,097 for immediate and medium term works (before inflation).

Table 3: Additional Maintenance Costs

Item	Amount
Immediate	101,788
Medium Term	195,977
Total Maintenance (necessary works)	254,097
Longer Term (if required)	240,676
Total	494,773

Note: Amounts exclude inflation
Source: AEC

Depreciation Charges

In line with the LMC Strategic Asset Management Plan, the useful lives in the following table should be applied to derive depreciation charges.

Table 4: Useful Lives by Asset Class

Asset Class	Useful Life	Depreciation Rate
Building Other Structures	39 years	2.6%
Buildings	50-60 years	1.7%-2.0%
Operational Land	n.a	n.a.
Office Equipment	3-20 years	5.0%-33.3%
Plant and Equipment	10 Years	10.0%
Average LMC	39 years	2.6%

Source: Wagga Wagga City Council

However, until each upgrade is completed and the project has reached practical completion, it is difficult to accurately segregate capital costs by these asset classes. Consequently, the average useful life of 39 years for current assets has been adopted for the purposes of forecasting depreciation charges.

Capital works items currently in the capital works plan are estimated to add \$72,130 per annum in real terms to depreciation charges. Additional depreciation charges from Masterplan works is then expected to total a further \$634,325 if all works are undertaken.

Table 5: Additional Depreciation Charges

Item	Amount
Immediate	129,7881
Medium Term	195,977
Total Depreciation (necessary works)	325,766
Longer Term (if required)	308,559
Total	\$634,325

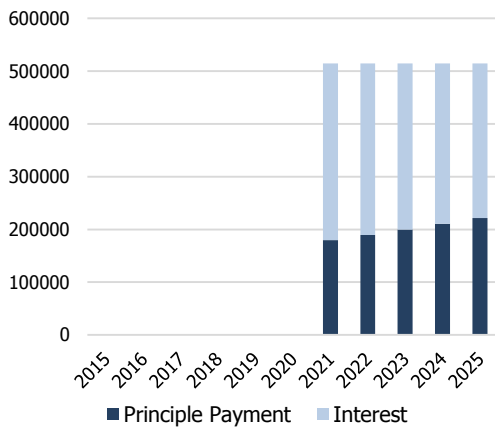
Note: Amounts exclude inflation
Source: AEC

Debt Service Payments

Loan borrowings of \$3.8 million to fund the medium term works results in increases to annual operating costs. The assumptions in Council's *Long Term Financial Plan* assumes loan borrowings to occur with a 5.4% interest rate over a 20 year term.

The following chart plots the loan service payment obligations over next 10 years.

Figure 4: Projection of Debt Service Payments



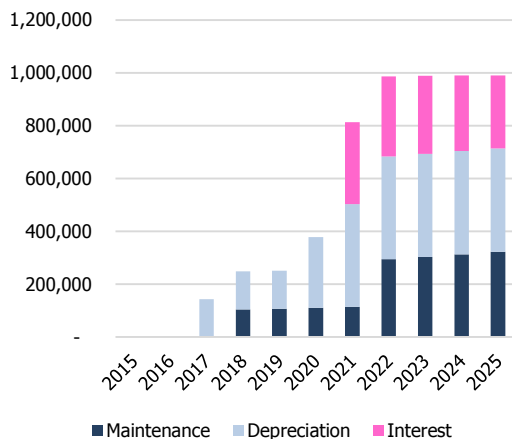
Source: AEC

Cost Projections

The following flowchart outlines the total additional operating costs (i.e. excludes loan principle payments) from immediate and medium term works that will impact the operating surplus of the LMC.

It is apparent that by 2022 the additional cost will reach nearly \$1.0 million.

Figure 5: Forecast Operating Costs from Necessary Short and Medium Term Works



Source: AEC

Revenue & Pricing

It is not possible to accurately delineate a completely accurate price comparison for livestock marketing centres due to differences in financial structures and the distribution of costs between agents, vendors and contractors. However, the LMC is considered to sit within the middle of the market in regards to pricing for leading livestock marketing centres (e.g. Dubbo, Forbes and Bendigo).

The industry outlook review identifies opportunity for 1.0% growth in cattle and 0.9% growth in sheep sales. This is relatively conservative in comparison to average historical growth of 4.6% since 2002.

Historically, the LMC has applied price increases to reflect CPI cost escalation and capital investment requirements as needed.

Consequently the pricing review needs to carefully consider pricing in line with demand and capital requirements, and the following pricing scenarios have been applied:

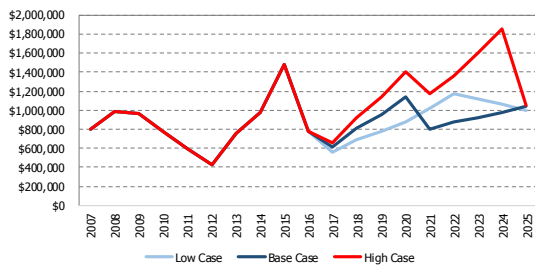
- **Low Case:** No growth and only the immediate works are required.
- **Base Case:** Conservative industry outlook growth of 1.0% for cattle and 0.9% for sheep, with both the immediate and medium term works being required.
- **High Case:** Strong future growth of 4.6% per annum (based on average growth since 2002), with immediate, medium and longer term masterplan works required to support the high level of growth.

A high level review of pricing against the cost impact of the proposed upgrades and forecast demand reveals that:

- If the LMC progresses with its current market share and planned growth level, a price increase in line with CPI in the short term will retain current surplus levels.
- But by 2020, without any price increases the LMC will decline into operating deficit
- This provides the LMC with the opportunity to continue monitoring demand and the need for medium and longer term works without any significant changes to price paths
- Longer term price paths should reflect the following revenue requirements:
 - Low Case: 4.0% per annum to 2021/22
 - Base Case: 3.6% per annum to 2021/22
 - High Case: 2.4% per annum to 2021/22

The following chart summarises the annual operating surpluses (before any dividend payment or reserve transfers) for each of these pricing scenarios should the above pricing strategies be applied. It presents how current operational surpluses can be retained by 2024/25.

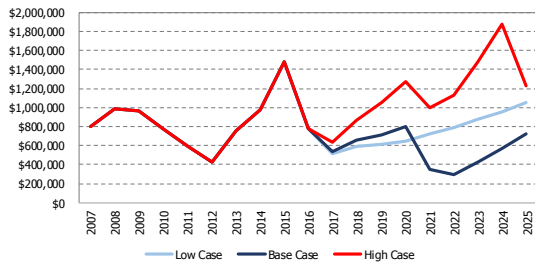
Figure 6: Operating Surplus with Price Path



Note: Operating Surplus = Operating Revenue less Operating Expenditure (inclusive of depreciation and interest)
Source: AEC

The following chart highlights the impact of a 2% per annum real increase in commodity prices over time on the LMC operational surplus without the application of the pricing path.

Figure 7: Operating Surplus with Higher Commodity Price Appreciation



Note: Operating Surplus = Operating Revenue less Operating Expenditure (inclusive of depreciation and interest)
Source: AEC

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