AGENDA

SPECIAL MEETING OF THE

HORSHAM RURAL CITY COUNCIL

To be held on

12 November 2018

At 4.30pm

In the

Council Chambers, Civic Centre

18 Roberts Avenue, HORSHAM

COUNCILLORS are respectfully requested to attend the Special Meeting of the Horsham Rural City Council to be held in the Municipal Chambers, Civic Centre, Horsham at 5.30pm on 12 November 2018.

Order of Business

1. PRESENT

2. OPENING

3. PRAYER

Almighty God, we pledge ourselves to work in harmony for, the social, cultural and economic well-being of our Rural City. Help us to be wise in our deliberations and fair in our actions, so that prosperity and happiness shall be the lot of our people. AMEN

4. ACKNOWLEDGEMENT OF COUNTRY STATEMENT

The Horsham Rural City Council acknowledges the five Traditional Owner groups of this land; the Wotjobaluk, Wergaia, Jupagalk, Jaadwa and Jadawadjali people. We recognise the important and ongoing place that all Indigenous people hold in our community.

We pay our respects to the Elders, both past and present, and commit to working together in the spirit of mutual understanding and respect for the benefit of the broader community and future generations.

5. WELCOME

Welcome to distinguished guests or persons in the public gallery.
The public are advised that the Council meeting will be recorded to maintain an audio archive.

6. APOLOGIES

Cr Josh Koenig will be an apology for this meeting.

7. CONFLICTS OF INTEREST

Disclosure of Interest and Declarations of Conflict of Interest.

A Councillor who has a conflict of interest and is attending the Council meeting must make a full disclosure of that interest.

(a) by either –

(i) advising the Council at the meeting of the details required under paragraphs (b) and (c) immediately before the matter is considered at the meeting; or

(ii) advising the Chief Executive Officer in writing of the details required under paragraphs (b) and (c) before the meeting; and

(b) classifying the type of interest that has given rise to the conflict as either –

(i) a direct interest under 77B; or

(ii) an indirect interest and specifying the particular kind of indirect interest under:

Section 78 – close association
Section 78A – financial interest
Section 78B – conflicting duties
Section 78C – receipt of an applicable gift
Section 78D – consequence of becoming an interested party
Section 78E – impact on residential amenity; and

(c) describing the nature of the interest; and

(d) if the Councillor advised the Chief Executive Officer of the details under paragraph (a)(ii), the Councillor must make a disclosure of the class of interest only to the meeting immediately before the matter is considered at the meeting.

<u>Members of Staff</u>

Under Section 80C of the *Local Government Act 1989*, officers or people engaged under contract to the Council providing a report or advice to Council must disclose any conflicts of interests in the matter, including the type of interest.

Section 89(2)(e) proposed development of the Local Government Act 1989

CLOSE

SUNIL BHALLA
Chief Executive Officer

8. OFFICERS REPORTS

8.1 HORSHAM REGIONAL LIVESTOCK EXCHANGE ROOFING – BUILDING BETTER REGIONS FUND APPLICATION

Author's Name:	**John Martin**	**Director:**	**John Martin**
Author's Title:	**Director Infrastructure**	**File No:**	
Department:	**Infrastructure**		

Officer Declaration of Interest
No officer involved in the preparation of this report has any conflicts of interest.

Status: Information classified confidential in accordance with *Local Government Act 1989 – Section 77(2)(c)*:☐Yes ☒No

Appendix

Horsham Regional Livestock Exchange Roofing Business Case report **(Appendix "8.1A")**

Purpose

To outline the basis of the funding application proposed to be submitted for roofing of the Horsham Regional Livestock Exchange (HLRE). The application is to be made to the Federal Government's Building Better Regions Fund (BBRF) program.

Summary

- Council endorsed the HRLE Master Plan in May 2018.
- Roofing of the Exchange was identified as the key priority from the Master Plan.
- A Business Case has been prepared which outlines the benefits and costs of roofing the Exchange, and evaluates alternatives, with the main alternative being the use of shade sails.
- The Business Case confirms the merit of roofing the Exchange, with an exceptionally high benefit/cost ration of at least 7.5.
- BBRF funding of $1.49 million is being sought for a project with a total cost of $3.03 million.
- A commitment will be required for Council's contribution of $1.54 million. It is proposed that this be via an internal loan to the Exchange over a period of 16 years, to be repaid from savings in operating costs and a levy on the cost of sheep sales, which was initiated in this current financial year. The Exchange is run as a separate financial entity.
- Construction is being planned to commence from July 2019.
- The BBRF applications are required to be submitted by 15 November 2018.

Recommendation

That Council:

1. Endorse the application to the Building Better Regions Fund for roofing the Horsham Regional Livestock Exchange
2. Commit to funding of $1.54 million for the project, as an internal loan, to be repaid over 16 years
3. Also pursue State Government funding for the project.

Report

Background

The Master Plan for HRLE has been reviewed and endorsed by Council, and establishes a clear case for roofing the Exchange.

Discussion

A business case has been prepared to evaluate in detail the merit of and options to roofing the Exchange. Options considered included:

- Roofing the entire Exchange
- Roofing parts of the Exchange
- Use of either a rigid structure or shade sails for roofing
- Selling / closing the facility
- Maintaining the status quo.

Options using shade sail and/or only partial roofing provide limited benefits compared to full roofing, in particular in areas such as:

- Animal and human welfare
- Value of sheep presented for sale from improved shelter conditions
- Cost/efficiency savings in cleaning the floor area
- Water savings.

It was found that the option to roof the full Exchange area delivered the best value per unit spend and this has been identified as the preferred option in the Business Case and the funding application. Should only partial funding be made available, then it is possible to roof the Exchange in stages, but this is less desirable.

Financial Implications

The analysis of the potential benefits from roofing the Exchange has exceeded this Director's expectations. In liaison with members of the Exchange Board, in particular the Stock Agents' representative, an assessment was made of the reduced value of sheep due to poor condition or presentation on days of hot or cold/rainy weather.

The economic analysis of the project's merit has yielded a benefit cost ratio at a conservatively high discount rate of 8% of 7.5, with even higher returns of around 9.7 at a more typical 5% discount rate.

The construction cost estimate in the Master Plan report of $2.55 million had some exclusions, which have been allowed for in the construction cost presented in the Business Case. The additional items relate to foundations, lighting, solar panels, tanks, contingency and project management.

The project would require Council funding of $1.54 million. Funds generated from the extra $0.02 per sheep levy (which increases for the following two years a further $0.02 per year), and operational savings of $60,000 per year (including revenue from solar panels), will enable an internal loan to be repaid in 16 years. The initial construction of the Exchange was part funded through a similar internal loan.

Links To Council Plans, Strategies, Policies

This project is identified in the HRLE Master Plan and action 3.4.02 of the Council Plan 2018-22.

Consultation/Communication

The Master Plan was developed with broad consultation. Details of the Business Case have been revised with assistance of the HRLE Board.

Letters of support for the project have been received from the Hon Andrew Broad MP, Wimmera Development Association, and the Stock Agents Association.

Economic information using REMPlan was provided by the Economic Development Manager.

Risk Implications

Typical construction risks will apply. An additional risk will be managing an operational site during construction. This is identified in the risk plan in the Business Case.

Environmental Implications

Roofing the Exchange is anticipated to cause negligible adverse environmental impact, with positive outcomes associated with better management of water and manure on site, and the use of solar panels and LED lighting to reduce greenhouse impact. In addition, positive animal welfare outcomes will arise.

Human Rights Implications

This report complies with the rights listed in the Victorian Charter of Human Rights and Responsibilities Act 2006.

Conclusion

The Business Case provides a sound basis for an application to the BBRF fund for full roofing of the Livestock Exchange.

Horsham Rural City Council urban rural balance

Business Case

Installation of Roof Horsham Regional Livestock Exchange

8 November 2018

Version Control

Checkpoint	Reference	Date Approved	Approved By
Business Case			

Contents

Executive summary

Horsham Regional Livestock Exchange (HRLE) is Victoria's fourth largest sheep and lamb market, with sales by auction averaging in excess of 500,000 animals per year.

The HRLE is an integral and important component in marketing produce from the Wimmera region and enables transparent transaction of livestock on behalf of livestock producers in a high-quality facility, located close to the supply of stock. Horsham Rural City Council owns and operates the HRLE as a self-funding, discrete financial entity.

With four sale days each month, there is a high likelihood of extremely high or extremely low temperatures at times when people and animals are present and working at the Exchange.

The exchange faces significant issues with human and animal welfare and safety during times of extreme weather. These issues provide a potential deterrent to the users of the facility, which may lead them to choose alternative facilities in the future. The facility also experiences high operating and maintenance costs caused by wet weather and low-efficiency lighting.

This report considers the options for resolving these issues and securing the future of the HRLE as a premier livestock exchange for the Wimmera region.

The options considered are to construct either a fixed roof or a shade-sail cover over part or all of the sheep facility, to maintain the status quo or to sell or close the facility, as detailed below.

Option 1. Roofing the sale pens only, an area of 110 m by 70 m (7700 m^2).

a. with a fixed roof or
b. covering with shade sails.

Option 2. Roofing the receival, draft, selling and 16 holding pens, an area of 130 m by 110 m (14,300 m^2).

a. with a fixed roof or
b. covering with shade sails.

Option 3. Roofing the entire sheep facility, a total area of 180 m by 130 m (23,400 m^2).

a. with a fixed roof or
b. covering with shade sails.

Option 4. Maintain the status quo;

Option 5. Sell the facility; or

Option 6. Close the facility.

The preferred option is to construct a fixed roof over the entire sheep facility (Option 3a) at an estimated cost of $3.15 million, to be delivered in 2019-20.

This option is preferred because it has the highest long-term benefits to all stakeholders, significantly reduces ongoing maintenance costs, provides sun and rain protection, water savings, CO_2 emission reductions, reduced operating costs and the generation of significant income from power generation. Its animal welfare benefits protect against loss of sale value and the infrastructure investment provides significant economic impact in terms of increased regional output, employment, salaries and wages and value-add.

REMPLAN modelling shows a total direct and indirect economic impact for Horsham of $13.8M and 23 jobs.

Shade sails have limited benefits, short or long-term, being only sun protection and improved lighting at a still considerable cost.

The option to roof the entire facility is preferred because of the economies of scale and that partial covering limits staff and animal health and welfare benefits.

1 Background

Horsham Regional Livestock Exchange (HRLE) is Victoria's fourth largest sheep and lamb market, with sales by auction averaging in excess of 500,000 animals per year. The exchange also caters for cattle sales, to a minor extent.

The Wimmera is a fertile agricultural region, with major land uses including dryland cropping (60.66%), livestock (17.93%) and nature conservation (12.91%).

The HRLE is an important component in marketing the produce from the Wimmera region and enables transparent transaction of livestock on behalf of livestock producers in a high-quality facility, located close to the supply of stock.

Horsham Rural City Council owns and operates the HRLE as a self-funding, discrete financial entity. Given its significant contribution to the local economy, and independent, financial viability, it is a valuable asset for the local community.

Horsham's semi-arid climate can be assessed through the statistics in Table 1 (source Bureau of Meteorology, 2018). Temperatures in summer can be high during the middle parts of the day and, in winter, can be below freezing in the mornings.

With four sale days each month, there is a high likelihood of extremely high or extremely low temperatures at times when people and animals are present and working at the Exchange. Humidity is moderate-high in the cooler months, hence there is a reasonable likelihood that rain will fall before, during or after sales events at these times.

Table 1. Climate Statistics, Horsham

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Record high (°C)	46.0	47.4	41.0	35.0	28.0	24.0	20.0	26.0	31.0	38.0	42.3	46.0	
Mean maximum temperature (°C)	29.8	29.8	26.4	21.6	17.2	14.0	13.4	15.0	17.6	21.0	24.8	27.7	21.5
Mean minimum temperature (°C)	13.1	13.3	11.2	8.3	6.2	4.4	3.7	4.3	5.5	7.1	9.5	11.5	8.2
Record low (°C)	1.0	2.5	1.0	-2.0	-4.0	-6.0	-5.0	-4.0	-3.0	-3.0	-2.0	1.0	
Mean rainfall (mm)	24.2	25.1	23.4	31.3	46.1	49.1	47.0	48.1	45.8	43.4	34.2	28.5	448.0
Mean number of days of rain ≥ 1 mm	2.9	2.8	3.5	4.7	7.1	8.5	9.3	9.9	8.3	7.1	5.0	3.9	73.0
Mean 3pm relative humidity (%)	33	36	39	47	60	68	66	60	55	48	41	37	49
red = highest value blue = lowest value													

The report, *Horsham Regional Livestock Exchange: Future Directions*, Outcross Agriservices (February 2018) identified a need to construct a roof over the Exchange to improve the facility for the animals, the sellers and their agents and the buyers.

This report provides the business case for construction of the roof.

2 Problems, Issues and Opportunities

2.1 Animal Welfare

The Victorian Government has strong policies on acceptable standards for protecting the welfare of animals in our care. Its Animal Welfare Action Plan (Department of Economic Development, Jobs, Transport and Resources, Dec 2017) outlines the measures to be taken to ensure compliance with Victoria's Prevention of Cruelty to Animals Act 1986. These measures are incorporated into the Australian Animal Welfare Standards and Guidelines for Livestock at Saleyards and Depots (*the Guidelines*, Department of Economic Development, Jobs, Transport and Resources, Feb 2018).

The Guidelines require that saleyard and depot facilities must have effective means to minimise the risk to the welfare of livestock from extremes of weather (Section 3.2). It also identifies that, for holding paddocks and yards, the provision of shade or cooling systems in hot climates and shelter from excessive cold for animals in holding facilities is desirable, recognising practical and economic limitations.

Horsham's saleyards expose sheep to extremes of temperature and rain. These conditions cause stress to animals that is considered not to represent best-practice animal welfare.

2.1.1 High temperatures

High temperatures occur regularly between October and March, with monthly averages between 25 and 30 degrees Celsius. Temperatures regularly reach the high 30s, and usually on several days per year are into the low-to-mid 40s.

2.1.2 Low temperatures

Low temperatures occur regularly between April and November, with the monthly average minimum below 10 degrees Celsius. Early morning temperatures are regularly near or below zero degrees.

2.1.3 Rainfall

Rainfall is reasonably uniform throughout the year with between 5% and 11% of the annual average rainfall falling each month. Between May and October, a quarter to a third of days experience rainfall over 1 mm.

2.2 Occupational Health and Safety

Personnel working at or visiting the Exchange are also exposed to extremes of temperature and rain. Many people are also required to work at the yards outside daylight hours, in particular on the shorter winter days. Sales are required to proceed on schedule in all conditions and agents, auctioneers and buyers are required to spend significant time exposed to the elements on sale days.

The current operation of cleaning the yards by hosing down, exposes staff to a medium to high risk of personal injury because staff have to drag heavy hoses around the yards and they have to work in heat or rain and in slippery conditions. This clean-up process takes up to three days following a sale.

Issues with extreme costs of lighting maintenance, discussed further on, cause less than optimum lighting conditions, which could introduce a risk to personnel operating at night. This occurs each week associated with the unloading and loading of livestock.

2.3 Operation

2.3.1 Electronic Identification Equipment

The livestock exchange has installed electronic identification of animals as they are drafted into the yards, in accordance with the Victorian Government's requirements to link to the National Livestock Identification Scheme. This equipment is in an outdoor environment, which presents operational difficulties for Exchange staff, agents, auctioneers and buyers.

The system requires agents to use tablets to monitor and control the movement of animals through the yards. Tablets are difficult to read, operate and protect in bright sunlight and during rain.

The requirement to use electronic identification increases the time needed for animals and staff to be in the yard. It is therefore not possible to leave delivery to the last minute to minimise stress on extreme weather days.

2.3.2 Cleaning

Following a sale, all hardstand areas that have carried stock are required to be cleaned. In dry weather, the concrete areas can be cleaned of sheep manure by sweeping. This takes two people four hours using a skid steer with a rotating broom attachment, a tandem trailer with a tractor to tow it and a back-pack blower. The average cost per sale is $470.

If the manure is wet from rain, the yard has to be cleaned by hosing down, which takes three people three days to complete at an average cost of $2050 plus the cost of water at $2 per kilolitre used. The chance of rain causing the need for wet cleaning on any day ranges from 10% to 30% (summer to winter months), based on the mean number of days of rain ≥ 1 mm (Table 1).

Dry sweeping does not remove all manure from the concrete. Should rain fall after cleaning and within three days prior to a sale, the remnant manure turns to slime, causing cleanliness, safety and disease issues for the staff and sheep. If time permits, depending how soon prior to a sale that the rain fell, the yards require cleaning again by hosing down.

2.3.3 Soft-stand Yards

Yards with dirt floors are used for stock that has to be kept on site for more than 24 hours. These yards cannot be used in wet weather because animals are not able to be housed on mud.

2.4 Maintenance

Lighting is the source of significant maintenance issues at the Exchange, being located on tall pylons. In high wind conditions, the pylons sway and shudder, sometimes violently, causing the socket connections to the globes to break. Corellas also cause significant damage by chewing the wires and power cables to the lights.

The pylons are too high for maintenance personnel to gain access to the light heads using a scissor lift; so, a crane is required. This is problematic for those pylons located within the midst of the yards, where access is particularly difficult due to the location of the gates and fence panels. These pylons require larger cranes with a long reach from outside the yard fencing.

To repair a light head has cost up to $20,000 per time, with the cost for electrical maintenance over the last 10 years having been $214,000.

To minimise costs, failed lights are not repaired until a number of heads have failed. The outcome of this is that there is often less than ideal lighting conditions at night for staff, agents and buyers to complete their tasks. Lighting maintenance is required, following this rationale, two to three times per year.

2.5 Competition

The strongest competition for the Horsham Regional Livestock Exchange comes from direct selling to meat processors at the farm, and from the neighbouring saleyards at Ballarat, Hamilton and Bendigo, which coincidentally are the Victoria's three largest livestock exchanges (by numbers sold) ahead of Horsham. To remain competitive, Horsham needs to provide at least equivalent facilities and services.

Should Horsham not remain competitive with these other Exchanges, a significant potential for a decline in the throughput of sheep and lambs would be created. The risk to Council is the Exchange becoming unviable, with the loss of local and regional industry activity and employment.

One facility offered at Horsham is the ability to accept small loads of stock from local producers in small trucks, utes and trailers. If the exchange was to cease operation, these local producers would be seriously limited in their ability to market their stock because of the large extra distances they would need to transport their stock. Many would not be able to operate without Horsham's saleyards.

If the yards are not roofed, people will start to send stock elsewhere.

2.6 Financial Implications

2.6.1 Sale returns

Meat and Livestock Australia provides guidance on how to reduce stress in animals pre-slaughter. Poor handling in the days and hours prior to slaughter can compromise the eating quality of even the best finished animals. Sheep and lambs are susceptible to stress and this must be minimised between mustering and slaughter.

An assessment of impacts on sale returns was made at an HRLE Board meeting on 18 October 2018, which included representatives of agents, transport operators, the community and HRCC.

In bad weather, some buyers may not turn up, reducing bidding competition and lowering returns. Value is also reduced due to contamination of skins from muck in the yards, leading to the risk of subsequent contamination of the carcass.

Cold wet weather impacts shorn sheep, where market value could reduce to almost zero. It was estimated that, on average, this impact occurs approximately two sales per year in June and July, when 10% of sale numbers would experience 50% loss in value.

Extreme hot weather is estimated to cause $5 to $10 loss in value of 50% of sale numbers on one sale day per year in February. There are also two to three sales per year when up to 50% of sheep are taken elsewhere, reducing throughput at Horsham.

Rainfall occurring on sale days will adversely impact the presentation of sheep with a full fleece by wetting the wool. This is estimated to reduce the sale value by $5 per head for 50% of throughput on five sales per year.

2.6.2 Energy efficiency

Some one-third to a half of the time spent by staff, freight operators, agents and buyers is spent in the dark, with stock arriving before auction the evening before and in the early hours of the morning of the sale and buyers loading stock late into the evening. Power-efficient lighting is therefore critical to the energy-efficient operation of the facility. The existing lighting requires high power input compared with modern LED systems.

2.6.3 Long-term viability

As competitive market operators improve their services offered, sellers and buyers will tend to move their business elsewhere. Declining market share could, over time, diminish the viability of the Horsham exchange. Outcross Agriservices (2018) indicates that the short-term cyclical declining throughput at Horsham in the last three years correlates with overall sheep numbers in

the Wimmera, however the risk remains that business could transfer to nearby exchanges with higher quality facilities and to direct selling.

2.7 Climate Change

2.7.1 Climate Predictions

The Australian Government Department of the Environment Bureau of Meteorology and the CSIRO website www.climatechangeinauatralia.gov.au provides a comprehensive analysis of the history and projections for Australian regional climate change.

Climate analysis for the Murray-Darling Basin Region, which includes the Wimmera, provide the following key messages.

- Average temperatures will continue to increase in all seasons (*very high confidence*).
- More hot days and warm spells are projected with *very high confidence*. Fewer frosts are projected with *high confidence*.
- By late in the century, less rainfall is projected during the cool season, with *high confidence*. There is *medium confidence* that rainfall will remain unchanged in the warm season.
- Even though mean annual rainfall is projected to decline, heavy rainfall intensity is projected to increase, with *high confidence*.
- Mean sea level will continue to rise and height of extreme sea-level events will also increase (*very high confidence*).
- A harsher fire-weather climate in the future (*high confidence*).
- On annual and decadal basis, natural variability in the climate system can act to either mask or enhance any long-term human induced trend, particularly in the next 20 years.

2.7.2 Climate impact

The impact on the operation and performance of the Exchange is likely to be:

- Higher ground temperatures will increase heat stress on animals and exacerbate poor working conditions for humans.
- Increase in rainfall intensity will worsen the presentation of sheep at sale, increase operational difficulties for staff and agents on sale days and increase the cost of cleaning the yards after a sale.
- Energy efficient operation and maintenance systems will be more important in managing the recurrent costs of the Exchange.

Council has a responsibility for considering climate change in its planning for the Exchange. Under the Victorian Government's Climate Change Adaptation Plan, local governments are required to:

- provide leadership and good governance, represent the needs and values of local communities, and foster community cohesion;
- Manage climate change risks to council community services and assets, with support from the State Government;
- Identify the needs and priorities of the municipality and communicate these to State Government where needed;
- Develop and deliver locally-appropriate adaptation responses;
- Build the resilience of local assets and services.

2.8 Energy Generation

A roof over the Exchange will provide a platform for installing photovoltaics for generating electricity. This electrical energy can be fed into the grid or stored in batteries for internal use, providing a financial benefit to Council.

3 Business Needs

3.1 Project Driver

Council's business driver for this project is to improve levels of service to sellers, agents and buyers of Wimmera sheep and lambs, which will ensure the viability of the Exchange as a long-term service to the local rural community.

3.2 Compliance with Regulatory Guidelines

The Horsham Regional Livestock Exchange currently complies with all Regulatory requirements.

In the current climate of increasing awareness of animal welfare issues, Victorian Government regulations to ensure the welfare of animals passing through the exchange have tightened through adoption of *Australian Animal Welfare Standards and Guidelines for Sheep (2016)*. This project is therefore required by Council to improve animal welfare conditions at the exchange.

3.3 Timing considerations

The problems and issues identified are current. Rectification requires action in the short term to prevent deterioration in the viability of the exchange.

4 Benefits

4.1 Benefits to be delivered

4.1.1 Animal Welfare

Animal welfare is to be improved at the exchange to be in line with the Guidelines. Council will be acting to avoid the risk of notices to improve conditions for animals.

A roof over the Exchange will improve the management options available for ensuring that animals are protected from extremes of heat and cold. The likelihood of interruptions to saleyard services caused by these extremes will be reduced accordingly.

4.1.2 Financial Implications

Reduced animal stress will ensure stock offered for sale are presented in peak condition so processors are able to produce premium quality products. Sellers will maintain their preference for using the Horsham exchange because of premium prices attained and a declining market share will be avoided.

4.1.3 Economic implications

Capital investment in the region will support direct and indirect growth in the local economy.

4.1.4 Social

The saleyards are an import social venue. This is important, for example, during periods of drought, when people come together to support each other.

4.1.5 Employment

The exchange facility, its operation and its supporting infrastructure currently support employment by Council of one full-time staff and three staff two days per week at the Exchange. There are also 28 people engaged by buyers, agents, auctioneers and contractors during sales delivering 8.3 FTE employees. Investment in the facility will secure these jobs for the region.

4.1.6 Environmental

Carbon emissions will be reduced by the conversion from the existing low-efficiency lighting to LED lighting systems.

There is also environmental benefit derived from the collection and use of rain water, the reduction in water use for cleaning and a reduction in the amount of waste water generated at the site.

Installing a roof will provide a potential site for solar photovoltaic panels to provide an additional reduction in power use with the consequent reduction in carbon emissions.

4.1.7 Occupational Health and Safety

The risk of personal injury to Council staff, sellers, buyers and agents from exposure to extremes of heat and cold will be further reduced below current control measures. The risk of slips and falls on wet concrete and elevated walkways will also be reduced.

By reducing the need for wet clean-up following sales, the likelihood of injury from back strain and from slips and trips when using heavy wash-down hoses will be reduced significantly.

4.1.8 Operation

Equipment for the electronic identification of animals will be brought into a covered environment that will improve the operations of staff, auctioneers, agents and buyers. This is expected to speed up transactions and reduce the likelihood of errors.

The cost of cleaning will be reduced by reducing the number of days that wet cleaning is required from the order of 30 days per year to three times per year. Even with dry cleaning as the normal method, a thorough wet clean is required three times each year to remove remnant soil and manure not removed using the dry brushes. These wet cleans will be able to be programmed at the most appropriate times to maximise the efficiency of operations, rather than being completed as dictated by the weather. Hence the cost of labour will be reduced by an estimated $30,000 per year.

The need for secondary wet cleaning after rain falls on previously dry-cleaned concrete will be eliminated.

Yards with dirt floors, used for stock that have to be kept on site for more than 24 hours, will be available at all times, improving the service to buyers and sellers, who would otherwise have to deliver or remove stock as dictated by the weather.

4.1.9 Maintenance

Modern LED lighting systems have the following benefits.

Premium grade LEDs use a quarter of the energy of incandescent lamps. They last 10 to 50 times longer, requiring replacement far less frequently and producing far less waste. At the livestock exchange, lighting failure is even more frequent than would be expected for normal traditional lighting installations, due to the extra exposure to bird attack and vibration of tall towers due to wind effects.

Replacement of roof-mounted LED lights (rather than pylon-mounted) would require less expensive lifting equipment, such as scissor lifts rather than cranes. LED lights can therefore be replaced when they fail, rather than having to wait until a number have failed, as is the current practice. This will avoid the reduced light intensity associated with the current practice of waiting until a critical number of lamps fail before replacement.

LEDs produce light that is easily directed with precision optics. Lights at the exchange can be designed to provide ideal light exactly where it is needed, without wasting energy on superfluous light.

LEDs contain no mercury, which is environmentally harmful.

Council staff estimate that lighting maintenance would be reduced by $5,000 per year.

4.1.10 Competition

Service conditions for users of the livestock exchange will be maintained equal to or superior to the neighbouring saleyards. Drivers for buyers and sellers to drift away from Horsham because of poor operational conditions will be eliminated. The benefit of a local exchange for smaller operators will be maintained, reducing the preference for on-farm direct selling of stock.

4.2 Importance of the benefits to Horsham Rural City Council

Council, as owner of the Exchange, is responsible for ensuring compliance with the relevant guidelines. It is also responsible for providing sustainable community services to its customers and secure employment opportunities for staff.

4.3 Case Study: Hamilton Regional Livestock Exchange Roof Water Harvesting

In June 2015, the Southern Grampians Shire Council commenced a $6.5 million suite of upgrades to the Hamilton exchange to take place over three years. A new roof over the sheep saleyards was installed, driven by the need to improve conditions for workers, visitors and livestock and reduce pressure on the site's effluent treatment plant, which was at capacity. The opportunity to obtain an alternate water supply for truck washing through roof water harvesting was also considered from the planning stage (Clearwater, 2017).

The published case study identified the following benefits.

1. Construction of the saleyards roof enabled economic, social and environmental benefits to be realised.
2. Harvesting roof water could save up to $60-70k per year in water bills whilst reducing dependency on potable water.
3. Roofing the saleyards made conditions safer and more comfortable for workers, visitors and livestock.
4. Capturing rain water provided a fit-for-purpose alternative to using bore water or potable water for truck washing.
5. Substituting bore water with rain water made truck wash effluent suitable for irrigation due to the lower levels of salt.
6. Roofing the saleyards reduced the quantity and improved the quality of stormwater runoff from the site.

5 Project Life Cycle

The project contains a number of phases that take time to complete.

5.1 Approval of Business Case

Council has adopted the *Horsham Regional Livestock Exchange: Future Directions* (February 2018) as the approved Master Plan for the Exchange, including its recommendation to construct a roof over the Exchange.

This business case requires an internal review and approval by Council stakeholders as the adopted strategy for delivering the Master Plan.

5.2 Tendering

The concept-level estimate of cost provided in the business case is based on a reliable estimate by a company experienced in the construction of livestock exchange infrastructure. The tendering process will review these estimates and provide a functional design costing, with an increased level of detail and confidence needed for the preparation of funding applications.

The functional design and costing review are to be completed by the end of 2018 in parallel with funding applications. Funding is then hoped to be secured by May 2019, which will allow for tenders to be called soon after.

Tenders will be called for on the open market, with four weeks allowed for receipt of tenders. Evaluation of tenders and assessment of tenderers will require two months from close of tenders. Preparation of construction documents and contracts will then be completed ready for construction from July 2019.

5.3 Construction

Construction is estimated to take nine months from acceptance of the preferred tender and signing of contracts.

A Construction Management Plan (CMP) is required to document all methods and timing, and include safety and environmental management strategies. It is a requirement that the Exchange is to remain operational throughout construction works. The methods to achieve this are to be determined in consultation with and with the approval of Exchange staff and are to be detailed in the CMP.

5.4 Project Delivery

Construction of the roof over the livestock exchange is programmed for 2019-20, if approved.

6 Stakeholders

6.1 External

External stakeholders include sellers, agents, auctioneers and buyers who use the livestock exchange on a weekly basis. Also included are Victoria's regulators and the authorities from which approvals may be required. Neighbouring councils may also be interested in the management of the HRLE.

Sellers, agents, auctioneers and buyers include:

1. Transport operators
2. Sellers agents: DMD, Elders, Landmark, Rodwells
3. Council contractors
4. DEDJTR – animal health regulation
5. PETA and Animals Angels groups are generally interested in the welfare of animals at saleyards.

Approvals for works at the site may be required from:

1. EPA Victoria
2. National Saleyards Quality Assurance Program

6.2 Internal

The following departments will require consultation during development of the livestock exchange project:

1. Finance
2. Economic Development
3. Infrastructure
4. HRLE Supervisor

6.3 Project Team

Table 2. Project team structure

Project Officer	Drawn from Project Office Team
Project Team	Drawn from Project Office Team
	Paul Christopher
Internal Stakeholder Consultative Group	Manager Engineering Services
	Manager Finance
	Media Officer

7 Corporate Risks

7.1 Risks

Risks vary through the life of the project. As the project progresses, new risks are identified and actions are taken to reduce and eventually eliminate the identified risks. A project risk register is maintained as a live document in Excel throughout the project. The register at concept phase is provided below. The risk rating response table is in the Attachment in Section 16.1.

7.2 Risk Register

This register is to be updated frequently during all phases of the project.

Table 3. Risk analysis

No.	Risk Description	Class	Rating	Action	Status	Who
	Planning					
1.	Uncertainty of cost estimates	Financial	Moderate	• Re-estimate costs at functional and detailed design phases • Budget according to upper limit of estimate uncertainty	Concept design estimate	
2.	Decline in animal sale numbers reduces viability	Financial	Low	• Early action to approve business case • Early implementation of public communications plan	Preparing business case for approval	
3.	Unable to acquire external funding	Financial	Moderate	• Document our regulatory requirement for funding • Make early applications	Under investigation	JM
4.	Planning permit	Regulatory	Low	• Seek permit following approval of business case	Awaiting approval	
	Functional design phase					
5.	Functional design cost estimate increased beyond budget	Financial	Low	• Design brief to cover all project delivery risks • Complete Hazards in Design assessment at design kick-off stage • Amend business case and submit for re-approval • Amend budget		
6.	Design does not meet business needs	Financial	Low	• Ensure design brief is comprehensive and clear		

	Detailed design phase					
7.	Detailed design cost estimate increased beyond budget	Financial	Low	• Design brief to cover all project delivery risks • Update Hazards in Design assessment at design kick-off stage • Amend business case and submit for re-approval • Amend budget		
8.	Construction method will cause significant interruption to Exchange operations	Financial, Reputation	High	• Complete Hazards in Operation (HAZOP) assessment at design kick-off stage • Include detailed requirements in design brief to limit interruptions to acceptable levels • Construction Management Plan to ensure that all sales proceed each week		
	Tender phase					
9.	Uncompetitive tenders	Financial	Moderate	• Ensure design and construction brief is comprehensive and clear • Seek preliminary expressions of interest prior to tendering • Seek tenders from broad market • Amend business case and submit for re-approval • Amend budget		
	Construction phase					
10.	Impacts of variations	Financial	Low	• Contract documentation comprehensive and clear • Include variation minimisation strategy in contracts • Council Project Officer to maintain close communications during design development • Regular updates from Contractor • Council Project Officer to maintain close communications during construction		
11.	Unexpected construction difficulties	Financial	Low	• Complete Hazards in Construction assessment at commencement of construction phase		

12.	Delays to project by others	Financial	Moderate	• Detailed advance planning to include third party inputs, inspections • Insure all approvals are applied for inadequate time • Clarify times taken for • claims for delays		
13.	Slippage in construction time-lines	Contract Management	Low	• Council Project Officer to maintain close communications during construction • Respond to construction issues rapidly • Seek responses to issues that minimize delays • Include significant contract penalties for delays		
14.	Omissions or errors in specifications and drawings	Financial	Low	• Contract documentation comprehensive and clear • Have contract specifications audited by independent expert		
15.	Impact of loss of staff	Contract Management	Low	• Include contingency for annual leave or resignation in construction management plan		
16.	Construction OHS issues - contractors, staff, public	Health and safety	Moderate	• Robust OHS systems • Review OHS matters at site meetings • Include OHS in site inductions • Manage public around the site		
17.	Contractor Issues - loss of key personnel, financial solvency, quality of work	Financial	Low	• Contractor to have proven capability for like works • Complete financial checks on contractor • Replacement of personnel without delay shall be covered in contract • Sub-contractor payments are to be made on time.		

8 Prioritisation of Project

Council places a high priority on delivery of this project.

It has determined that it intends to proceed with the project as soon as funding is available. It has adopted the HRLE Master Plan and approved levy increases to facilitate repayment of an internal loan to cover Council's portion of the capital cost.

9 Options analysis

9.1 Options considered

An options assessment was completed by Outcross Agri-Services (2018, pp42-49) who identified Options 1a, 2a, 3a, 4, 5 and 6, below.

Option 1. Roofing the sale pens only, an area of 110 m by 70 m (7700 m^2).

a. Roofing the sale pens with a fixed roof provides sun and rain protection for sheep, agents and buyers at sale times only.
b. Covering the sale pens with shade sails provides sun protection for sheep, agents and buyers at sale times only.

Option 2. Roofing the receival, draft, selling and 16 holding pens, an area of 130 m by 110 m (14,300 m^2).

a. Roofing the receival pens, draft, selling pens and 16 holding pens with a fixed roof provides sun and rain protection for sheep, agents, sellers and buyers from time of delivery of sheep until conclusion of sales and provides cover for 16 of 26 dirt holding pens.
b. Covering the receival pens, draft, selling pens and 16 holding pens with shade sails provides sun protection for sheep, agents, sellers and buyers from time of delivery of sheep until conclusion of sales and provides cover for 16 of 26 dirt holding pens.

Option 3. Roofing the entire sheep facility, a total area of 180 m by 130 m (23,400 m^2).

a. Roofing the entire sheep facility with a fixed roof provides sun and rain protection for sheep, agents, sellers and buyers from time of delivery until removal of stock, including overnight accommodation for stock in the holding pens.
b. Roofing the entire sheep facility with shade sails provides sun protection for sheep, agents, sellers and buyers from time of delivery until removal of stock, including overnight accommodation for stock in the holding pens.

Whilst the selling pens are important on sale day when buyers, agents and auctioneers are working, the receival, draft and 16 holding pens are important the day before and the day after sales where staff and agents are working for extended periods of time. These other yards cover two-thirds of the area and are in use two-thirds of the time. Staff and animal health and welfare needs are therefore significant in these yards.

Option 4. Maintain the status quo;

Continue with the current operation, maintenance and renewal strategy.

Option 5. Sell the facility; or

Option 6. Close the facility.

Options 5 and 6 would involve Council divesting itself of all involvement in livestock exchange.

A fixed roof would cover the exchange with corrugated, or similar, galvanised iron sheeting on a steel frame, similar to the new Ballarat exchange and the Hamilton exchange.

Shade sails have been used in many large-scale installations such as over the Nhill, Rainbow and Donald swimming pools and over the Stawell Special School. Shade sails are installed over a 10 m by 10 m span with the entire area covered by as many spans as required. The HRLE would require 18 by 13 spans.

9.2 Social impacts

Saleyards are integral to a local community.

Direct benefits of roofing the exchange are the provision of improved human welfare from sun protection, particularly during the heat of the day in the peak selling season and rain protection. General working conditions are improved, which improves data collection and record keeping.

Option 1. Roofing the selling pens provides protection during the auctions only.

Option 2. Roofing the receival, draft, selling and 16 holding pens provides protection from the time the sheep are unloaded into the receival pens until the auctions are complete.

Option 3. Roofing the entire sheep facility provides protection from the time the sheep are unloaded into the receival pens until they are loaded onto trucks for removal from the site.

Option 4. Maintaining the status quo maintains the problems and issues identified in Section 2. It also maintains the risk to Council that Options 5 or 6 will become inevitable.

Socially, saleyards foster community spirit and are integral in community engagement. Health service providers have identified saleyards as the equivalent of men's groups where rural men are able to meet and discuss things in a familiar environment. With the escalation in depression levels, saleyards are a lifeline in combatting feelings of loneliness and isolation and bring immeasurable benefits to the mental health of regional communities.

Quality facilities at saleyards that improve sale results for farmers only go to enhance social benefits.

9.3 Environmental impacts

Options one, two and three reduce environmental impacts by reducing emissions from the existing low-efficiency lighting. There is also environmental benefit of a fixed roof, derived from the collection and use of rain water, the reduction in water use for cleaning and a reduction in the amount of waste water generated at the site.

A fixed roof will provide a site to install solar photovoltaic panels whereby the electricity generated will reduce emissions.

9.4 Economic impacts

Options one, two and three will secure the economic future of the exchange.

Option four may lead to a loss of market share as farmers prefer facilities that are likely to generate more lucrative sales. A reduction in throughput by 5% from the current 500,000 head per annum would reduce the return to Council from fees by $2000.

9.5 Financial analysis

A financial analysis is summarised in the following tables. The estimated costs are based on 2018 dollars, and will need to be escalated in budget forecasting to the year of delivery.

9.5.1 Costs and savings

Table 4. Estimates for fixed roof options

		Option 1a	Option 2a	Option 3a
Capital Costs	Roof structure	$ 1,245,000	$ 2,170,000	$ 2,550,000
	Foundations	$ 15,000	$ 30,000	$ 40,000
	Lighting	$ 70,000	$ 70,000	$ 70,000
	Water storage	$ 60,000	$ 60,000	$ 60,000
	Solar panels	$ 100,000	$ 100,000	$ 100,000
	Contingency	$ 60,000	$ 80,000	$ 100,000
	Project Management	$ 50,000	$ 50,000	$ 50,000
	Totals	$ 1,600,000	$ 2,560,000	$ 2,970,000
Annual Maintenance	0.25% per year for 20 years then 0.5%	$4,000/$8,000	$6,400/$12,800	$7,400/14,800
Annual Savings	Labour	$ 10,000	$ 20,000	$ 30,000
	Water	$ 2,000	$ 4,000	$ 5,000
	Lighting maintenance	$ 2,000	$ 4,000	$ 5,000
	Power usage for LED lights	$ 700	$ 1,400	$ 2,000
	Direct power saving with solar	$ 2,000	$ 2,000	$ 2,000
	Feed-in tariff income	$ 16,000	$ 16,000	$ 16,000
	Totals	$ 32,700	$ 47,400	$ 60,000

Table 5. Estimates for shade sail options

		Option 1b	Option 2b	Option 3b
Capital Costs	Poles	$ 96,000	$ 168,000	$ 260,000
	Sails	$ 308,000	$ 572,000	$ 936,000
	Lighting	$ 40,000	$ 80,000	$ 120,000
	Contingency	$ 40,000	$ 60,000	$ 80,000
	Project Management	$ 30,000	$ 30,000	$ 30,000
	Totals	$ 514,000	$ 910,000	$1,426,000
Maintenance	Sail replacement every 14 years	$ 333,000	$ 607,000	$ 981,000
	Re-stitching sails after 7 years	$ 27,700	$ 51,500	$ 85,000
	Totals	$ 360,700	$ 658,500	$1,066,000
Annual Savings	Lighting maintenance	$ 2,000	$ 3,000	$ 5,000
	Power usage for LED lights	$ 700	$ 1,400	$ 2,000
	Totals	$ 2,700	$ 4,400	$ 7,000

Installing shade sails for each of options one, two and three has a clearly lower capital cost, being one-third to half the cost of a fixed roof. The benefits of a fixed roof are, however, that it has considerably lower ongoing maintenance costs, it generates significantly higher savings and facilitates the installation of solar photovoltaic cells. Shade sails provide only protection from the sun.

On-going maintenance for the fixed roof has been estimated at 0.25%, based on current Council experience for similar structures. This allowance has been doubled for years 20 and beyond to provide for possible increase in maintenance as the structure ages.

The cotton thread used in the sails has a life of seven years and the better-quality sail material, a life of 15 years. An alternative material commonly used has a life of 10 years. On-going maintenance of sails therefore involves removing the sails after seven years for re-stitching and after another seven years for replacement. The fixed roof, similar to the roofs at the new Ballarat exchange and at the Hamilton exchange, would require minor maintenance for its life. A structure such as this would generally have an economic life of 50 years but physically, it would be expected to achieve an asset life of 80 to 100 years.

The ongoing savings generated by shade sails are due to the installation of high-efficiency LED lighting for the area covered by the sails. For the fixed roof, savings also include water savings by capturing roof run-off and labour savings by improved cleaning efficiency.

A fixed roof also has the benefit of being able to support 100 kW of photovoltaic cells within the limits of the small-scale renewable energy market provisions. Electricity generated during the day is available for direct use, saving the cost of energy from the grid. Excess energy generated will be fed into the grid, generating an income to Council. After the six-year pay-back period, the energy returned to the grid would provide a direct income stream for Council.

9.5.2 Nett present value

Because of the wide variation in capital and recurrent costs and direct savings, a financial comparison of options requires a nett present value (NPV) analysis. The results are shown in Table 6 and include a sensitivity analysis for different internal rates of return (IRR).

Table 6. Nett present value of costs, including direct savings

	Option	1a	1b	2a	2b	3a	3b
		Roofing the sale pens		Roofing the receival, draft, selling and 16 holding pens		Roofing the entire sheep facility	
	IRR, %	Fixed roof	shade sail	Fixed roof	shade sail	Fixed roof	shade sail
NPV55	3	$ 916,600	$ 950,600	$1,590,900	$1,720,700	$1,719,000	$2,742,400
	5	$1,118,100	$ 782,600	$1,875,200	$1,409,900	$2,087,700	$2,238,100
	8	$1,283,100	$ 651,600	$2,108,600	$1,167,500	$2,389,600	$1,844,800
NPV100	3	$ 780,400	$1,069,900	$1,400,100	$1,941,400	$1,470,100	$3,100,300
	5	$1,084,800	$ 813,300	$1,828,500	$1,466,700	$2,026,800	$2,330,200
	8	$1,278,700	$ 655,800	$2,102,500	$1,175,100	$2,381,700	$1,857,200

To account for the ongoing maintenance costs of shade sails and the ongoing benefits of a fixed roof, an NPV analysis was prepared for IRRs of 3%, 5% and 8%.

As Table 6 shows, the comparison depends on the IRR used. A low rate (3%) reflects that Council would value future costs and savings highly and a high rate (8%) reflects that Council would be more concerned about current expenditure than later-year costs and benefits. At 5% IRR, the fixed roof is preferred for option three and the shade sails for options one and two. This is because the capital cost of option three for the fixed roof is lower per square meter than for options one and two because of significant economies of scale.

Where future benefits are of lesser concern, the shade sail cover comes out as the preferred option. Where they are a greater concern, the fixed roof is clearly preferred.

9.5.3 Intangible benefits

Hot, cold or wet weather leads to loss of market value for sheep. This is avoided by roofing the yards, as identified above.

Also, an infrastructure investment of this nature will have significant economic benefits to the region due to increased demand for intermediate goods and services, increased indirect employment, increased wages and salaries and an increase in the direct and indirect value-add from the direct expansion in the economy.

These benefits have not been evaluated for each of the options but have been evaluated, below, for the preferred option. These benefits will not change the order of preference of the options and will only strengthen the selection of the preferred option.

10 Preferred option

10.1 Long-term benefits

The preferred option depends on Council's appetite for realising long-term benefits.

For the long-term benefit of Council, its ratepayers and the region, it is recommended that a lower IRR be adopted, i.e. 3% to 5%.

10.2 Fixed roof

Option 3a is preferred, to construct a fixed roof over the entire sheep facility at an estimated cost of $3.0 million (2018$, escalated to $3.1M for construction be to completed in 2020$).

This option is preferred because it has the highest long-term benefits to all stakeholders, being little or no ongoing maintenance costs, protection from sun and rain, water savings, CO_2 emission reductions, reduced operating costs and the generation of significant income from power generation. Its animal welfare benefits protect against loss of sale value and the infrastructure investment provides significant economic impact in terms of increased regional output, employment, salaries and wages and value-add.

Shade sails are not preferred because they have limited benefits, short or long-term, being only sun protection and improved lighting at a still considerable cost. They do not satisfy all the business needs identified in Section 3. This is reflected in the higher NPV for shade sails for the whole facility.

10.3 Entire facility

The option to cover the entire facility is preferred because of the economies of scale and that partial covering limits staff and animal health and welfare benefits.

Roofing one-third of the facility would cost an estimated $1.6 million; two-thirds, $2.6 million and the whole facility, $3 million. Some two-thirds of the benefits defined in Section 4 would be realised by roofing the other yards as well as the selling pens.

10.4 Detailed evaluation of benefits to be delivered

The benefits identified in Section 4.1 will be delivered by the preferred option, with additional detail provided here.

10.4.1 Economic

The livestock exchange has an economic benefit to the region by providing a livestock exchange service to Wimmera farmers without creating a financial burden to the rest of the community.

REMPLAN modelling provides the following summary of the impact for Horsham of a $3.1M infrastructure investment and an increase in annual sales output from the Exchange of $0.988M.

Table 7. REMPLAM modelling summary for $3.1 M infrastructure investment at the Exchange

Impact Summary	Direct Effect	Supply-Chain Effect	Consump-tion Effect	Total Effect	Type 1 Multiplier	Type 2 Multiplier
Output ($M)	3.150	2.301	1.253	6.704	1.731	2.128
Employment (Jobs)	4	7	5	16	2.750	4.000
Wages and Salaries ($M)	0.611	0.536	0.305	1.452	1.877	2.377
Value-added ($M)	1.186	0.902	0.735	2.823	1.761	2.380
Total ($M)				10.979		

Table 8. REMPLAM modelling summary for an increase in annual sales output from the Exchange of $0.988M

Impact Summary	Direct Effect	Supply-Chain Effect	Consumption Effect	Total Effect	Type 1 Multiplier	Type 2 Multiplier
Output ($M)	0.988	0.579	0.206	1.773	1.586	1.794
Employment (Jobs)	4	2	1	7	1.500	1.750
Wages and Salaries ($M)	0.065	0.124	0.050	0.239	2.922	3.700
Value-added ($M)	0.387	0.255	0.121	0.763	1.658	1.969
Total ($M)				2.775		

The complete REMPLAN reports are in the Attachments in Section 16.2 and Section 16.3.

The total direct and indirect economic impact for Horsham is therefore $13.8M and 23 jobs.

10.4.2 Financial

Direct financial benefits include the following annual savings.

Table 9. Direct financial benefits of the preferred option

Labour	$30,000
Water	$5,000
Lighting maintenance	$5,000
Power usage for LED lights	$2,000
Direct power saving with solar	$2,000
Feed-in tariff income	$16,000
Avoided loss of sale value	$988,000

The annual avoided loss of sale value is calculated from the data provided in Section 2.6.1.

10.4.3 Benefit – cost analysis

A full NPV analysis of costs, direct savings and intangible benefits yields the following for the preferred option (

Table 10). This analysis includes the financial evaluation of savings, income from feed-in tariffs and loss of sale value avoided due to protection of the yards from extremes of heat and cold and from rain. It also includes the REMPLAN evaluation of economic benefit to the region.

Evaluation of avoided loss of market share has not been included, but could increase the present value of the economic benefit by over $300,000.

Table 10. The NPV over the life of the structure (100 years)

	Costs	Savings	Benefits	Benefit-Cost	B/C ratio
IRR 3%	$3,317,794	$1,847,749	$41,420,093	$39,950,048	13.04
IRR 5%	$3,159,978	$1,133,251	$29,657,082	$27,630,355	9.74
IRR 8%	$3,071,459	$689,835	$22,356,983	$19,975,359	7.50

10.4.4 Employment

The preferred option will secure direct employment by Council of one full-time staff and three staff two days per week at the Exchange. There are also 28 people engaged by buyers, agents, auctioneers and contractors during sales delivering 8.3 FTE employees.

Indirectly, the employment opportunities created within local communities provide essential ongoing economic stimulus. There is also a continuous boost to local businesses on sale days as they experience increased trade.

The indirect benefit on employment for the region is the creation of 16 jobs.

10.5 Options for staging

Should funding be limited in the short term, there may be options to stage the development over a number of years.

1. The longest period of protection for sheep is achieved if holding pens are completed first, i.e., the west side and south end. This provides limited benefit for electronic identification (EID) equipment or for participants on sale day.
2. Covering the northern end will provide maximum protection for agents and EID equipment.

3. The busiest area contains the selling pens, where most people are on site, albeit for only for a short time; only one to five hours of actual selling. This area also requires intense cleaning after sales.
4. The delivery end doesn't get cleaned as much but sheep can be held here for a considerable time waiting to be taken away.

If staging becomes necessary, then a strategy needs careful consideration. It is, however, not the preferred option because of the significant increases to be expected in costs resulting from multiple mobilisation and demobilisation of construction contractors.

This is highlighted in the cost estimates for Options 2a and 3a, where the final one-third of the whole area is estimated to cost an additional $400,000. If Option 2a was to be constructed as a first stage and the additional third of the area constructed separately, the second stage would be expected to cost in the vicinity of $1.2 million, similar to the current estimate for Option 1a.

11 Funding

11.1 Cost escalation

The estimates of cost provided in this report are based on 2018 dollars. The cost at time of delivery needs to be considered when preparing funding applications and Council budgets. If delivery is proposed for 2019-20, cost estimates need to be escalated by $100,000.

11.2 Cost estimate confidence

Cost estimates are based on the best available information from MKM Constructions, who are delivering the roof over the new Ballarat exchange, Carey Covers from Stawell, who have delivered numerous large area shade sails within the Wimmera region and Council staff for internal cost and savings estimates. These estimates provide a confidence range of -30% to +50%.

A more detailed costing will be determined for funding applications during the functional design. Further refinement will then be provided during the detailed design and again when tenders are received for delivery of the works. Funding strategies and budgets can be updated at each of these phases of development of the project.

11.3 Funding grants

It is proposed to seek funding from State and Federal grants to cover 50% of the capital cost of the project, i.e. $1.55 million.

11.4 Internal funding

Internal funding will be required for 50% of the cost of the project, i.e. $1.55 million.

Increasing the levy on sales of sheep by two cents per head will generate additional income of $30,000 per year. If implemented immediately, this will generate a fund towards the capital cost at time of delivery, in three years, of $90,000, leaving a balance of $1.46 million.

The additional levy income of $30,000, together with estimated savings of $60,000 per year, will accrue to cover the remaining capital cost in 16.2 years.

Therefore, a no-interest internal loan will have a payback period of 16 years.

11.5 Budget

The following is the forecasted expenditure for the project.

Table 11: Project Budget (escalated dollars)

Project Phases	2018-19	2019-20	2020-21	Total
Functional design and tender preparation	$50,000			$50,000
Project Delivery			$3,100,000	$3,100,000
Estimated cost to complete works				**$3,150,000**
Current Council Budget Forecast	**$50,000**		**$1,550,000**	**$1,600,000**
Grant funding			**$1,550,000**	**$1,550,000**

12 Regulatory Approvals

Approvals may be required for building and construction, cultural heritage. Approval requirements are to confirmed during the design phase.

13 Recommendation

It is recommended

1. that the preferred option, Option 3a, to construct a roof over the entire sheep facility be adopted, at a total estimated construction cost of $3.1 million (2020$)
2. that the Council Budget include allocations to reflect the current estimated cost in the year 2019-20.

14 Sign-off

14.1 Council Acceptance

Council has adopted the report: *Horsham Regional Livestock Exchange: Future Directions* (February 2018), which includes a recommendation to construct a roof over the Exchange.

14.2 Stakeholder acceptance

The internal stakeholders listed here endorse the recommendations of this business case and accept that issues relevant to them have been adequately addressed.

Endorsed by	Signed	Date
Superintending Manager, Horsham Regional Livestock Exchange		
Chairman, Horsham Regional Livestock Exchange Board		
Director Infrastructure		

14.3 Sign-off

Authority to Proceed Approved By	Signed	Date
Chief Executive Officer		

15 Supporting Documents

Outcross Agriservices (February 2018), *Horsham Regional Livestock Exchange: Future Directions*

The State of Victoria Department of Environment, Land, Water and Planning (2016), *Victoria's Climate Change Adaptation Plan 2017 - 2020*

The State of Victoria Department of Economic Development, Jobs, Transport and Resources (2017), *Animal Welfare Action Plan*

The State of Victoria, *Prevention of Cruelty to Animals Act 1986*

Australian Animal Health Council, *Australian Animal Welfare Standards and Guidelines for Sheep* (Proposed, 2013)

Clearwater, *Hamilton Regional Livestock Exchange Roof Water Harvesting* (September 2017)

16 Attachments

16.1 Risk rating response table

Rating	Response
Extreme	• Immediate Action is required and must be reported to the Director, and the Risk Management Coordinator • If possible choose an alternative less risky means of action. • Assign responsibility of risk to individual responsible for overseeing risk treatment/s.
High	• Develop risk response strategies as part of the HRCC risk management processes. • Ongoing monitoring of risk and progress of risk response of treatment plans. • Must be reported to the Risk Management Coordinator • Assign responsibility of risk to individual responsible for overseeing risk treatment/s.
Moderate	• Regular monitoring and re-evaluation or potential risk and any factors that may increase the consequence or likelihood.
Low	• Manage risk through existing processes and procedures

16.2 REMPLAN Impact Report for Horsham (Heavy Civil Engineering Construction)

16.2.1 Impact Scenario

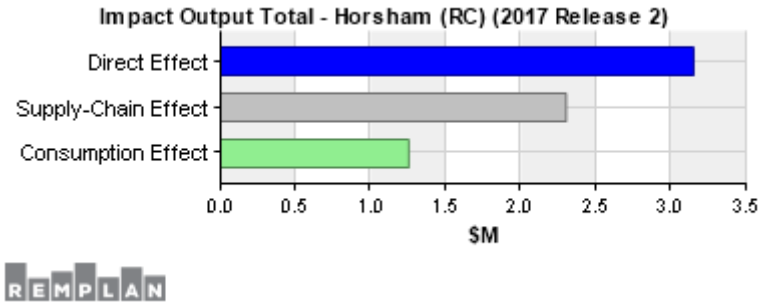
Industry Sector	Direct Change Jobs	Direct Change Output ($M)
Heavy Civil Engineering Construction		$3.150

16.2.2 Impact on Output

From a direct increase in output of $3.150 million it is estimated that the demand for intermediate goods and services would rise by $2.301 million. This represents a Type 1 Output multiplier of 1.731. These supply-chain effects include multiple rounds of flow-on effects, as servicing sectors increase their own output and demand for local goods and services in response to the direct change to the economy.

The increases in direct and indirect output would typically correspond to the creation of jobs in the economy. Corresponding to this change in employment would be an increase in the total of wages and salaries paid to employees. A proportion of these wages and salaries are typically spent on consumption and a proportion of this expenditure is captured in the local economy. The consumption effects under this scenario are estimated at $1.253 million.

Total output, including all direct, supply-chain and consumption effects is estimated to increase by up to $6.704 million. This represents a Type 2 Output multiplier of 2.128.

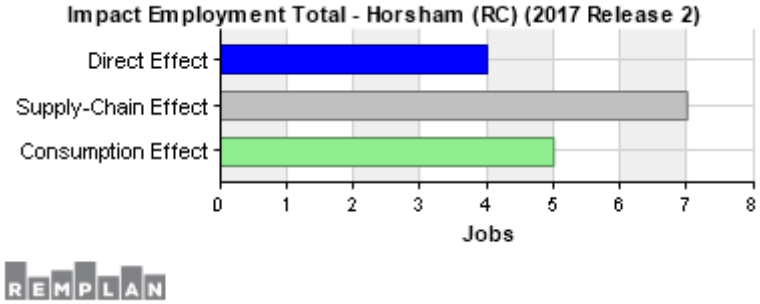


16.2.3 Impact on Employment

From a direct increase in output of $3.150 million the corresponding creation of direct jobs is estimated at 4 jobs. From this direct expansion in the economy, flow-on supply-chain effects in terms of local purchases of goods and services are anticipated, and it is estimated that these indirect impacts would result in the gain of a further 7 jobs. This represents a Type 1 Employment multiplier of 2.750.

The increase in direct and indirect output and the corresponding creation of jobs in the economy are expected to result in an increase in the wages and salaries paid to employees. A proportion of these wages and salaries are typically spent on consumption and a proportion of this expenditure is captured in the local economy. The consumption effects under this scenario are estimated to further boost employment by 5 jobs.

Total employment, including all direct, supply-chain and consumption effects is estimated to increase by up to 16 jobs. This represents a Type 2 Employment multiplier of 4.000.

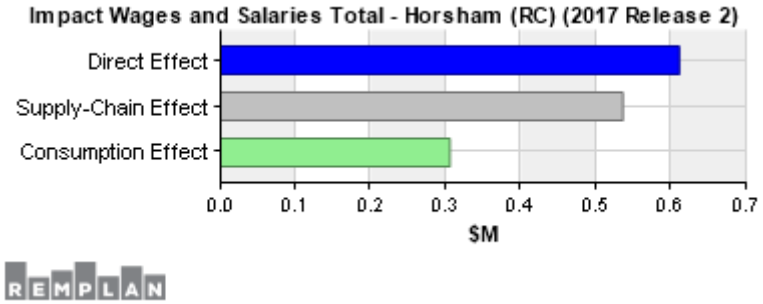


16.2.4 Impact on Wages and Salaries

From a direct increase in output of $3.150 million it is estimated that direct wages and salaries would increase by $0.611 million. From this direct expansion in the economy, flow-on supply-chain effects in terms of local purchases of goods and services are anticipated, and it is estimated that these indirect impacts would result in the gain of a further 7 jobs and a further increase in wages and salaries of $0.536 million. This represents a Type 1 Wages and Salaries multiplier of 1.877.

The increase in direct and indirect output and the corresponding creation of jobs in the economy are expected to result in an increase in the wages and salaries paid to employees. A proportion of these wages and salaries are typically spent on consumption and a proportion of this expenditure is captured in the local economy. The consumption effects under this scenario are expected to further boost employment in sectors such as retail therefore further increasing wages and salaries by $0.305 million.

Total wages and salaries, including all direct, supply-chain and consumption effects is estimated to increase by up to $1.452 million. This represents a Type 2 Wages and Salaries multiplier of 2.377.

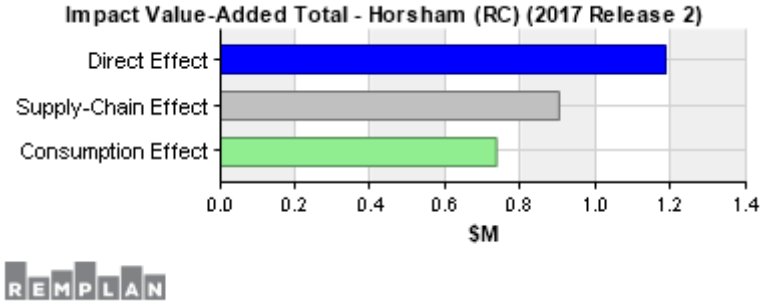


16.2.5 Impact on Value-Added

From a direct increase in output of $3.150 million the corresponding increase in direct value-added is estimated at $1.186 million. From this direct expansion in the economy, flow-on supply-chain effects in terms of local purchases of goods and services are anticipated, and it is estimated that these indirect impacts would result in a further increase to value-added of $0.902 million. This represents a Type 1 Value-added multiplier of 1.761.

The increase in direct and indirect output and the corresponding boost to jobs in the economy are expected to result in an increase in the wages and salaries paid to employees. A proportion of these wages and salaries are typically spent on consumption and a proportion of this expenditure is captured in the local economy. The consumption effects under this scenario are expected to further boost value-added by $0.735 million.

Total value-added, including all direct, supply-chain and consumption effects is estimated to increase by up to $2.823 million. This represents a Type 2 Value-added multiplier of 2.380.



16.2.6 Impact Summary

Impact Summary	Direct Effect	Supply-Chain Effect	Consumption Effect	Total Effect	Type 1 Multiplier	Type 2 Multiplier
Output ($M)	3.150	2.301	1.253	6.704	1.731	2.128
Employment (Jobs)	4	7	5	16	2.750	4.000
Wages and Salaries ($M)	0.611	0.536	0.305	1.452	1.877	2.377
Value-added ($M)	1.186	0.902	0.735	2.823	1.761	2.380

16.3 REMPLAN Impact Report for Horsham (HRLE Increase in Sales)

16.3.1 Impact Scenario – Additional annual increase in sales output for Livestock Exchange following installation of roofing (refer Business Case Section 2.6.1)

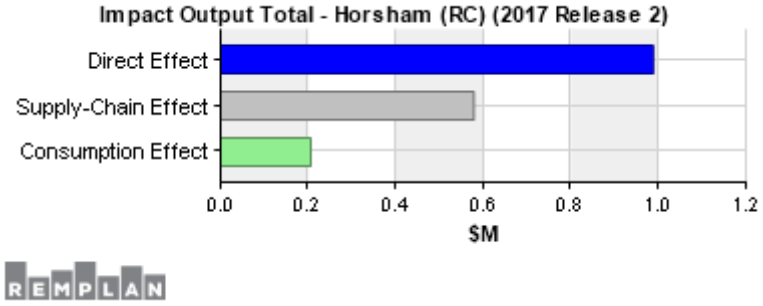
Industry Sector	Direct Change Jobs	Direct Change Output ($M)
Livestock, Grains Other Agriculture		$0.988

16.3.2 Impact on Output

From a direct increase in output of $0.988 million it is estimated that the demand for intermediate goods and services would rise by $0.579 million. This represents a Type 1 Output multiplier of 1.586. These supply-chain effects include multiple rounds of flow-on effects, as servicing sectors increase their own output and demand for local goods and services in response to the direct change to the economy.

The increases in direct and indirect output would typically correspond to the creation of jobs in the economy. Corresponding to this change in employment would be an increase in the total of wages and salaries paid to employees. A proportion of these wages and salaries are typically spent on consumption and a proportion of this expenditure is captured in the local economy. The consumption effects under this scenario are estimated at $0.206 million.

Total output, including all direct, supply-chain and consumption effects is estimated to increase by up to $1.773 million. This represents a Type 2 Output multiplier of 1.794.

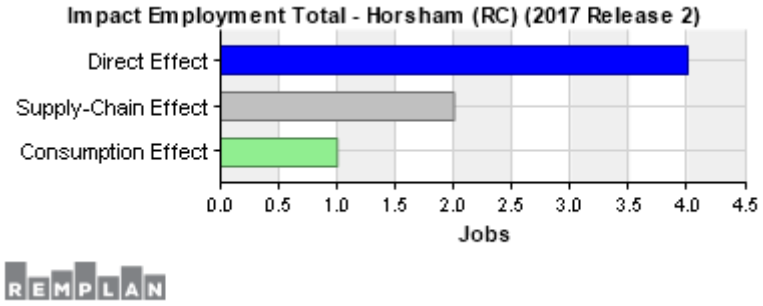


16.3.3 Impact on Employment

From a direct increase in output of $0.988 million the corresponding creation of direct jobs is estimated at 4 jobs . From this direct expansion in the economy, flow-on supply-chain effects in terms of local purchases of goods and services are anticipated, and it is estimated that these indirect impacts would result in the gain of a further 2 jobs . This represents a Type 1 Employment multiplier of 1.500.

The increase in direct and indirect output and the corresponding creation of jobs in the economy are expected to result in an increase in the wages and salaries paid to employees. A proportion of these wages and salaries are typically spent on consumption and a proportion of this expenditure is captured in the local economy. The consumption effects under this scenario are estimated to further boost employment by 1 job .

Total employment, including all direct, supply-chain and consumption effects is estimated to increase by up to 7 jobs . This represents a Type 2 Employment multiplier of 1.750.

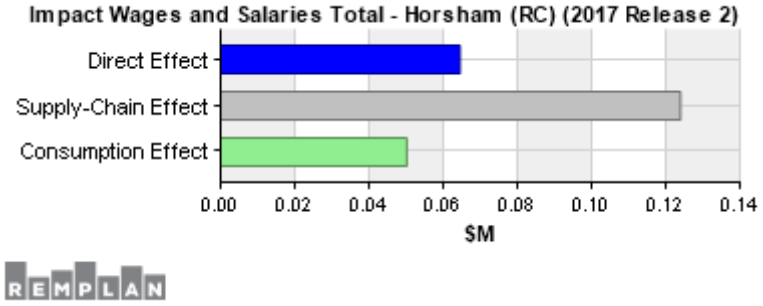


16.3.4 Impact on Wages and Salaries

From a direct increase in output of $0.988 million it is estimated that direct wages and salaries would increase by $0.065 million. From this direct expansion in the economy, flow-on supply-chain effects in terms of local purchases of goods and services are anticipated, and it is estimated that these indirect impacts would result in the gain of a further 2 jobs and a further increase in wages and salaries of $0.124 million. This represents a Type 1 Wages and Salaries multiplier of 2.922.

The increase in direct and indirect output and the corresponding creation of jobs in the economy are expected to result in an increase in the wages and salaries paid to employees. A proportion of these wages and salaries are typically spent on consumption and a proportion of this expenditure is captured in the local economy. The consumption effects under this scenario are expected to further boost employment in sectors such as retail therefore further increasing wages and salaries by $0.050 million.

Total wages and salaries, including all direct, supply-chain and consumption effects is estimated to increase by up to $0.239 million. This represents a Type 2 Wages and Salaries multiplier of 3.700.

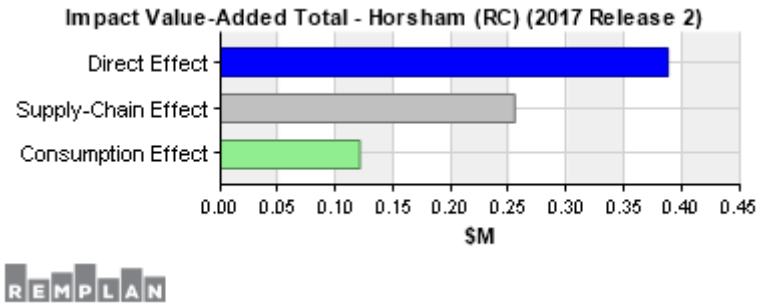


16.3.5 Impact on Value-Added

From a direct increase in output of $0.988 million the corresponding increase in direct value-added is estimated at $0.387 million. From this direct expansion in the economy, flow-on supply-chain effects in terms of local purchases of goods and services are anticipated, and it is estimated that these indirect impacts would result in a further increase to value-added of $0.255 million. This represents a Type 1 Value-added multiplier of 1.658.

The increase in direct and indirect output and the corresponding boost to jobs in the economy are expected to result in an increase in the wages and salaries paid to employees. A proportion of these wages and salaries are typically spent on consumption and a proportion of this expenditure is captured in the local economy. The consumption effects under this scenario are expected to further boost value-added by $0.121 million.

Total value-added, including all direct, supply-chain and consumption effects is estimated to increase by up to $0.763 million. This represents a Type 2 Value-added multiplier of 1.969.



16.3.6 Impact Summary

Impact Summary	Direct Effect	Supply-Chain Effect	Consumption Effect	Total Effect	Type 1 Multiplier	Type 2 Multiplier
Output ($M)	0.988	0.579	0.206	1.773	1.586	1.794
Employment (Jobs)	4	2	1	7	1.500	1.750
Wages and Salaries ($M)	0.065	0.124	0.050	0.239	2.922	3.700
Value-added ($M)	0.387	0.255	0.121	0.763	1.658	1.969