



ESSENTIAL ECONOMICS

Echuca-Moama Bridge Project Environment Effects Statement

Economic Impact Assessment

FINAL

Prepared for

VicRoads

by

Essential Economics Pty Ltd

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GLOSSARY OF TERMS

Term	Definition
1 in 100 year flood	A flood which results from a storm which has a statistical probability of occurring once in every 100 years.
Access	The location by which vehicles and / or pedestrians enter and / or leave property adjacent to a road.
Afflux	A rise in upstream water level caused by introducing a constriction such as a bridge, into a stream, channel or floodplain.
Alignment Option	The location and geometric form of a carriageway in both the horizontal and vertical directions. For this impact assessment, the Alignment Option being assessed is the Mid-West Option.
Arterial Road	The nominated traffic routes (such as Murray Valley Highway or Cohuna-Echuca Road / Warren Street), for longer distance travel and larger vehicles.
At grade intersection	An intersection where all roads cross at the same level usually controlled by traffic signals or Stop or Give Way signs.
Attenuation	The reduction in the magnitude of sound pressure level during transmission over a distance or around a barrier.
Axel load limit	Restrictions on how much load can be carried on an axel, single or dual tyres, and on the vehicle or vehicle combinations.
Australian Height Datum (AHD)	The Australian standard height datum for calculating levels.
B-double	A twin trailer articulated vehicle with the second trailer pivoting on the back of the first.
Batter	<p>In road construction, an artificial uniform slope created on the sides of fills or cuts. The proposed batters for the Project have a slope of 2:1 (vertical to horizontal).</p> <p>A batter is also known as an embankment.</p>
Benefit Cost Ratio (BCR)	The ratio of the discounted benefits over the life of a project to the discounted capital costs, or the project's discounted total agency costs.
Bored pile	A steel or reinforced concrete post that is inserted vertically into the ground by drilling, or formed in the ground in a pre-bored hole, to support a load.
Bridge	A bridge is a structure built to cross an obstacle in the road network. The Project

Term	Definition
	comprises bridges across the Campaspe River, the Murray River and some bridging components over the Campaspe/Murray River floodplains.
Carriageway	That portion of a road or bridge devoted particularly to the use of vehicles, inclusive of shoulders and auxiliary lanes, such as the two-lane, two-way carriageway in the initial alignment.
Chainage	The distance of a point along a control line, measured from a datum point.
Clear Zones	An area within the recovery area which is ideally kept clear of hazards (or within which unmovable hazards are shielded). The width of the clear zone reflects the probability of an accident occurring at that location and the cost-effectiveness of removing hazards. The clear zone width is dependent on traffic speeds, road geometry and traffic volume.
Concept Design	Initial high-level functional layout of a concept, such as a road or road system, to provide a level of understanding to later establish detailed design parameters.
Construction Environmental Management Framework (CEMP)	A site or project specific plan developed to ensure that appropriate environmental management practices are followed during the construction and/or operation of a Project.
Construction Area	The area defined for the Project within the Right of Way that would be directly impacted by construction activities. activities.
Corridor	An area of travel between two points. It may include more than one major route and more than one form of transport. Two corridors were investigated prior to the development of the EES. These corridors were identified as the Mid-West 2 Corridor (which included the Mid-West 2A Option and Mid-West 2B Option) and the Mid-West Corridor, (which included the Mid-West Option).
Culvert	One or more subsurface adjacent pipes or enclosed channels for conveying surface water or a stream below road formation level.
Cut	The depth below the natural surface of the ground to the construction level.
dB(A)	The human ear is not equally sensitive to all parts of the sound frequency range and the scale most commonly used is the A-weighted decibel or dB(A). This unit most accurately reflects human perception of the frequency range normally associated with road traffic noise.
Deceleration lane	An auxiliary traffic lane provided to allow vehicles to decrease speed on the approach to an intersection.
Design speed	A speed fixed for the design and correlation of those geometric features of a carriageway that influence vehicle operation. The Mid-West Option has been designed to 90 kilometres per hour, for a posted speed limit of 80 kilometres per hour.

Term	Definition
Driven pile	A steel or reinforced concrete post that is driven vertically into previously unexcavated soil by striking it with a pile driving hammer.
Earthworks	All operations involved in loosening, removing, depositing, shaping and compacting soil or rock.
Environmental Management Framework (EMF)	Outlines the environmental measures recommended to be adopted as part of the EES.
Environment	For the purpose of the EES, environment incorporates physical, biological, heritage, cultural, economic and social aspects.
Environment Effects Statement (EES)	A statement prepared at the request of the Victorian Minister for Planning, pursuant to the Victorian Environment Effects Act 1978, on the potential environment impact of a proposed development.
Fill	One or more of the following: <ol style="list-style-type: none"> 1. The depth from the pavement subgrade level to the natural surface. 2. That portion of road where the formation is above the natural surface. 3. The material placed in an embankment.
Floodway	Land that is identified as carrying active flood flows associated with waterways and open drainage systems.
Freehold land	Privately owned land.
Gradeline	The level and gradient of a road carriageway along the centreline.
High Productivity Freight Vehicles (HPFV)	Larger combination vehicles such as B triples and super B doubles that are restricted to specific arterial routes.
Higher Mass Limits (HML)	Allows for higher axle loading for various axle groups in compliance with National accreditation and restricted to specific routes.
Highway	A road to which is assigned a permanent priority for traffic movement over that of other roads.
Initial alignment	For the purpose of this EES, the initial alignment comprises the construction of a two lane, two-way carriageway road including bridges across the Campaspe and Murray Rivers.
Intersection	The place at which two or more roads meet or cross.
Land use	The type of development permitted in an area: industrial, commercial,

Term	Definition
	residential, recreational or a combination of some or all of these different uses.
Local access path	Minor path generally located in a local or residential area that links road and/or off road cycling routes, and off road pedestrian paths, such as those paths within Victoria Park.
Major Road	A road to which is assigned a permanent priority for traffic movement over that of other roads.
Mid-West Option (Preferred Alignment)	The Mid-West Option extends from the Murray Valley Highway along Warren Street before diverting to the northwest where it crosses Campaspe Esplanade and the Campaspe River, then turns north-east to cross the Murray River north of the Victoria Park Boat Ramp. This alignment then extends north in New South Wales to cross Boundary Road in Moama and connect with the Cobb Highway at Meninya Street.
Mid-West 2A Option	The Mid-West 2A Option extends north/northwest on a new alignment from the intersection of the Murray Valley Highway and Warren Street, crosses the Campaspe River north of the Echuca Cemetery, before turning northeast towards Reflection Bend on the Murray River. This alignment then passes immediately south of Reflection Bend and crosses the Murray River north of the Victoria Park Boat Ramp, then extends north in New South Wales to cross Boundary Road in Moama and connect with the Cobb Highway at Meninya Street.
Mid-West 2B Option	The Mid-West 2B Option extends north/northwest on a new alignment from the intersection of the Murray River Highway and Warren Street, crosses the Campaspe River northeast of the Echuca Cemetery, before turning north towards the Echuca Sports and Recreation Reserve. This alignment crosses the Murray River north of the Victoria Park Boat Ramp, then extends north in New South Wales to cross Boundary Road in Moama and connect with the Cobb Highway at Meninya Street.
Mitigation Measures	Measures which are implemented to reduce an adverse impact caused by road construction and operation.
No Project Option	This assumes no additional bridge crossing of the Murray River and assumes existing road conditions and networks remain unchanged.
Preferred Alignment	The preferred alignment within Victoria is the Mid-West Option.
Property	A property is land owned by a single or more landowners. It may include multiple contiguous titles owned by the same registered proprietor.
Recovery Area	The area beside the traffic lane required for a run-off-road vehicle to stop safely or be brought under control before re-joining the traffic lane.
Review of Environmental Factors (REF)	A report prepared to satisfy the planning approval requirements of the Environmental Planning and Assessment Act 1979 (NSW).

Term	Definition
Right-of-Way (ROW)	<p>The Right-of-Way is a strip of land that is reserved through a planning scheme amendment for the public purpose of a road (road reserve) and encompasses sufficient land to construct and maintain the Project. The Right-of-Way for the Project comprises the sealed road surfaces (including shoulders / verges) and a 5m to 10m wide strip of land on either side of the road formation of the ultimate duplication.</p> <p>Note: In NSW, a Right-of-Way is known as a Road Reserve.</p>
Right-turn lane	Right-turn lanes are used to provide space for the deceleration and storage of turning vehicles.
Risk Assessment	The processes of reaching a decision or recommendation on whether risks are tolerable and current risk control measures are adequate, and if not, whether alternative risk control measures are justified or would be implemented.
Roads and Maritime Services (Roads and Maritime)	Roads and Maritime Services is the co-proponent for the Echuca-Moama Bridge Project. Roads and Maritime Services is the NSW state government department responsible for the environmental assessment on the NSW component of the Project.
Roundabout	A channelised intersection at which all traffic moves clockwise around a central traffic island. The roundabouts proposed as part of the Project are located at the Murray Valley Highway/Warren Street intersection, and on Warren Street. Both are three-leg roundabouts.
Scoping Requirements	The Scoping Requirements for the EES under the Victorian Environment Effects Act 1978 entitled 'The Second Crossing of the Murray River at Echuca-Moama', dated June 2014.
Service Road	A road designed or developed to be used, wholly or mainly, by traffic servicing adjacent land along the north west side of Warren Street as part of the Mid-West Option only.
Shared Path	A paved area particularly designed (with appropriate dimensions, alignment and signing) for the movement of cyclists and pedestrians.
Spill Basins	Engineered basins designed to contain spills on the new carriageway, preventing contaminates from entering the floodplain.
Staged Construction	A construction sequence in which the initial alignment comprising a single traffic lane in each direction is constructed and then, should traffic demand warrant an increase in road capacity, the road and bridge structures are duplicated, providing two traffic lanes in each direction.
Study Area	The area identified by individual specialists to determine potential impacts for the Project relating to a specific discipline.

Term	Definition
Super “T”	A type of bridge span construction where the load-bearing structure (usually reinforced concrete) has a T-shaped cross-section.
The Project	The Echuca-Moama Bridge EES (the Project) involves the construction and operation of a second road bridge crossing of the Murray and Campaspe Rivers at Echuca-Moama.
Title	A title is an official record of who owns a parcel of land. Adjoining titles in the same ownership are considered and assessed as a ‘property’ in the impact assessment.
Turning lanes	An auxiliary lane reserved for turning traffic, providing deceleration length and storage for turning vehicles.
Two Way Carriageway	A carriageway with two traffic lanes allotted for use by traffic in opposing directions.
Ultimate duplication	For the EES, the ultimate duplication comprises the construction of a duplicated roadway and bridges. The ultimate duplication would be constructed if future traffic demand warrants an increase in road capacity. The EES considers the potential impacts of the ultimate duplication.
VicRoads	VicRoads (Roads Corporation) is the co-proponent for the Echuca-Moama Bridge Project. VicRoads is responsible for project management of the planning and would manage the construction of the Project.
Work Hours	‘Work’ is defined as any activity other than office bound duties, including the starting up of plant and machinery. Work for the Project would not be undertaken outside the hours of 7am or sunrise, whichever is the later, and 6pm or sunset, whichever is earlier. Work outside these hours requires prior consent.

EXECUTIVE SUMMARY

VicRoads, in partnership with New South Wales Roads and Maritime Services (Roads and Maritime), is planning for a second Murray River crossing at Echuca Moama. The second crossing, known as the 'Echuca-Moama Bridge Project' (the Project) would:

- ease congestion on the existing bridge
- provide an alternate access for traffic between the two towns, and;
- support road freight, including Higher Mass Limits vehicles (HML) and High Productivity Freight Vehicles (HPFV).

On 14 June 2013, the (Victorian) Minister for Planning determined that an Environment Effects Statement (EES) would be required to assess the Project's potential environmental effects within Victoria. As the Project extends into NSW, a Review of Environmental Factors (REF) would be required to assess impacts within New South Wales. This impact assessment has been prepared to inform the EES and REF.

This EES considers three (3) alignment options within Victoria comprising roads and bridges that provide an alternate access over the Murray River and Campaspe River between Echuca and Moama. The three alignments considered as part of this EES are identified as the:

- Mid-West Option;
- Mid-West 2A Option; and
- Mid-West 2B Option.

Of these three alignments, the Mid-West Option was determined to be the better performing option when considering a balance between environmental, social and economic considerations and was selected for detailed risk and impact assessment. The Mid-West Option uses existing road reserves for part of its length, has the least impact on biodiversity and habitat values, cultural heritage values and satisfies the Project objectives. This report considers the economic impacts of the Mid-West Option and supports its selection as the Preferred Alignment.

The Project comprises a Right of Way which is sufficient to build a four lane road and duplicated bridges across both Rivers. Construction of the Project would be staged and includes an Initial Alignment and an Ultimate Duplication. The Initial Alignment comprises two lanes in each direction (a single carriageway) except in Moama north of Boundary Street as the alignment joins the Cobb Highway, where two lanes in either direction will be constructed. The Ultimate Duplication will comprise two lanes in each direction and a second bridge built next to the bridge built to accommodate the Initial Alignment.

This Economic Impact Assessment Report has been prepared in response to the Scoping Requirements for the Project. The assessment included review of previous investigations, consideration of the existing conditions, an options assessment, environmental risk assessment and impact assessment.

The impacts resulting from the Project's initial alignment include:

Construction Phase

Compared to a No Project Option the following impacts have been identified.

Benefits and Opportunities

- Employment generation of 4,240 Full Time Equivalent (FTE) jobs supported over a three-year construction period, comprising 1,630 direct FTE jobs and 2,610 indirect (multiplier) FTE jobs.
- Opportunities for training and upskilling of the local workforce, including new apprenticeships created to support the Project.
- Business opportunities for many regional operators including those providing services associated with the provision of quarry material, concrete, civil engineering, transportation and equipment hire.
- Wage spending stimulus of approximately \$18 million over three-years from construction workers relocating to Echuca-Moama, with this spending benefiting a range of business sectors including retail, accommodation, financial and rental service, trade supplies, cafes and restaurants.
- In order to maximise business and employment opportunities, the following approaches should be considered:
 - Include local content weighting in tender documentation for main contract (s) subject to consistency with existing procurement guidelines
 - Require successful main contractor to brief interested parties prior to the tendering of sub-contracts (in Echuca-Moama) to enable local businesses to better understand project opportunities/works packages, works timing, specifics of the tender process and so forth
 - Use of an organisation such as the Industry Capability Network to match works packages with local suppliers
 - Participation of Campaspe and Murray Shire Council's to provide advice and assistance to local businesses with the tendering process.

Impacts

- Potential disruption to some business located towards the northern end of Meninya Street during construction activities due to restricted access to business premises (customers and suppliers) and negative impacts on trade associated with large-scale works occurring in the immediate area (noise, dust, congestion, safety and so forth).
- Potential negative impacts on Echuca Holiday Park due to the facility's close proximity to the bridge structure, including increased noise levels and reduction in visual amenity as the structure is being built. These factors could lead to a loss of patronage (and associated revenues) to competing caravan parks on either side of the border.

- Potential disruption to river-based businesses such as paddlesteamers, houseboats and the like during the bridge crossing phase of the construction, as well as to the annual Southern Ski 80 event.
- A sufficient labour pool is available to service the Project including a strong construction base in Echuca-Moama, supported by additional labour options in nearby centres such as Bendigo, Deniliquin and Shepparton. However, some specialist labour will need to be imported (estimated at 135 FTE's), which is typical of an infrastructure project of this scale and complexity.
- When considering accommodation options for imported labour, Echuca-Moama has a significant stock of hotel, motel, serviced apartments, cabins and powered sites amounting to approximately 1,500 rooms/cabins/sites and over 4,000 bed spaces. This supply should be sufficient to provide for these workers (even at peaks) without impacting on the tourist market. There is very little capacity available in the local rental housing market (less than 1% vacancies) and the small number of properties available should not be used to accommodate Project workers.

Proposed Mitigation Measures

- Businesses effected by construction activities – Working hours for project construction works to be managed within times specified in VicRoads standard specification to minimise noise, traffic movement and other negative impacts on business operators, especially accommodation providers. These include restrictions on hours of operation, days of operation (weekends, during major events and the like) and the types of work that might be permitted at particular times or on specific days. Additionally, a traffic management plan would be prepared to guide construction-vehicle movements in and around the Project construction site (including across the existing bridge) in the most efficient manner during the construction period.
- River based activities – In consultation with river-based businesses, minimise the number, extent and duration of river closures during the bridge crossing phase of the construction. Additionally, ensure sufficient and safe access is provided for all river users (especially large paddlesteamers) during the works.
- Southern 80 Event – VicRoads is prepared to include in the Project construction contract a suspension of construction works in the vicinity of the Southern 80 event venue over the two-week period required for event set-up, event staging and decommissioning of the event site (terms to be agreed).
- Construction worker accommodation – Consider including in the Project contract a requirement that construction workers be housed in available commercial or private accommodation (where practical), rather than using permanent rental accommodation which is in short supply. Alternatively a Project accommodation strategy might be developed with input from the main contractor, Local and State government representatives, accommodation providers and property stakeholders.
- VicRoads and Roads and Maritime Services would encourage the contractor to meet with the local Council's to discuss suitable accommodation options for project workers.

Operational Phase

Compared to a 'No Project Option' the following impacts have been identified.

Benefits and Opportunities

- Significantly improved access and efficiency of movement for heavy vehicles which will benefit industry and agricultural operators.
- Significantly improved efficiency of movement for visitors which will benefit tourism-related businesses on either side of the border and well as improved access to and from major events such as the annual Southern Ski 80 race. Other tourism benefits include the potential to develop the Bridge Arts Project which will use the bridge structure as a focal point for displaying indigenous and contemporary art displays.
- Improved trading conditions and opportunities for CBD operators in Echuca and Moama as the removal of 40% of vehicles (including many heavy vehicles) from these areas will improve amenity and allow for planning and investment to create more connected, well-functioning and attractive shopping and dining areas.
- In order to maximise business and employment opportunities, the following approaches should be considered:
 - the opportunity to utilise the bridge structure for artistic and cultural purposes, including consultation with Bridge Arts Project stakeholders when preparing the bridge design documentation to investigate how the bridge structure might accommodate the Bridge Arts Project requirements (subject to an assessment of amenity impact on the local area)
 - Involvement of local businesses and business groups in the revitalisation of key shopping and dining areas facilitated by improved traffic outcomes on both sides of the border
- Potential for permanent relocation of non-local project workers and their families during and post-project, bringing additional skills and incomes to the region and supporting population growth.

Impacts

- Potential for some loss of passing trade for Moama businesses located close to the existing bridge.
- Potential negative impacts on a number of businesses located close to the bridge route including:
 - Moama Marketplace (access)
 - Echuca Caravan Park (noise and visual)
 - Madison Spa Resort and (noise and visual)
 - River Country Motel (reduced access, noise and visual)

Proposed Mitigation Measures

- Echuca Holiday Park – Road agencies to consider sound mitigation (if warranted) to lessen the impact of the bridge structure and its operations on the Holiday Park.
- Moama Marketplace – Road agencies to hold ongoing discussions with property owner and centre manager, especially during the detailed design stage, to resolve concerns relating to site access (deliveries and customer) and land acquisition.
- Madison Spa Resort, Moama – Road agencies to consider providing sound mitigation (if warranted), to lessen the impact of the bridge structure and its operations on the facility.
- River Country In, Moama – Roads and Maritime Services to consider allowing U-turns at the northbound right turn lane on the Cobb Highway at the Perricoota Road traffic signals to enable direct access to the motel, subject to a road safety audit. Road agencies to consider noise mitigation (as detailed in the Noise Impact Assessment Report) and assistance with works required to create an alternative entrance to the motel in Francis Street, including relocation of signage.

While impacts relating to future bridge duplication are discussed in Chapter 6, quantification of these impacts is not possible as duplication may be many years away and impacts will be dependent on industry, business and labour force structures in place at that time, as well as any competing infrastructure projects occurring in the region at the time of duplication.

1 INTRODUCTION

1.1 Project Overview

VicRoads, in partnership with Roads and Maritime Services, is planning for a second Murray River crossing at Echuca Moama. The second crossing, known as the Echuca-Moama Bridge Project would ease congestion on the existing bridge, provide an alternate access for vehicles and pedestrians between the two towns cater for freight and agricultural machinery.

As part of assessment and approvals processes, the Project was referred to the Victorian Minister for Planning for a decision on whether an assessment under the *Environment Effects Act 1978* was needed to determine the Project's potential for significant environment effects. On 14th June 2013, the Minister determined an Environment Effects Statement (EES) was required to assess environmental effects within Victoria. As the Project extends into New South Wales, a Review of Environmental Factors (REF) would be required to assess impacts within NSW.

This Economic Impact Assessment has been prepared to inform both the EES and REF. The EES is required to consider the Project's potential environmental effects,, inform the public and other stakeholders and enable a Minister's to inform decision makers. The purpose of the REF is to document the likely environmental and to detail recommended protective measures to be made during construction.

The Project EES has considered three alignment options. As part of the EES options assessment, the Mid-West alignment was found to be the best option and this impact assessment has been prepared based on the Mid-West Alignment (the preferred alignment).

1.2 Purpose of this document

The purpose of this report is to document the existing conditions, the economic impacts and to outline the methodology, risks and proposed mitigation for the Project within Victoria and New South Wales.

Economic impacts assessed (refer to Chapter 6) include:

- New investment associated with the Project
- Construction employment generated by the Project
- Business participation opportunities for local firms and contractors during the construction phase
- Improved efficiency of vehicle movement for freight operators, workers and visitors to the region

Risks assessed (refer to Chapter 6) include:

- Disruption to businesses due to construction activities

- Reduced access to business premises due to the preferred route alignment
- Negative businesses impacts associated with increased traffic noise, reduced visual amenity etc
- Reduced trade due to businesses being bypassed as a result of the new bridge
- Reduced agricultural production associated with loss of land to accommodate the preferred route option.

Proposed mitigation measures are identified in section 6.2.3.

2 PROJECT DESCRIPTION

2.1 Project Background

Echuca and Moama are currently linked by a single road bridge across the Murray River with a single lane in either direction. The existing bridge was built in 1878 and originally operated as a combined road/rail bridge until 1989 when a separate rail bridge was built. The nearest alternative road crossings of the Murray River are at Barham, 86 km to the west, Barmah 36 km to the east, or Tocumwal 120 km to the east.

The existing road bridge and its approaches have inherent safety and operational limitations including an inability to carry over-width loads and higher mass limit vehicles used by an increasing proportion of the freight transport industry. Rehabilitation work to upgrade the bridge's operational capacity would require long road closures and would be further complicated by heritage considerations.

The existing bridge does not provide a suitable level of service for increased light vehicle traffic experienced during peak summer tourist events. Extensive delays are commonly experienced at these times which are easily exacerbated by any minor traffic incidents. This results in long delays and in particular, restricts emergency services vehicles moving from one town to the other.

Early investigations to provide a second Murray River Crossing at Echuca-Moama began in 1965. Since then, VicRoads has completed extensive planning investigations including route options development and environmental impact assessments. Over the past 15 years, five corridors have been considered for an additional Murray River crossing. These investigations have included:

- An Environment Effects Statement (EES) / Environment Impact Statement (EIS) study in 2000/2001 which determined a Western Corridor as the approved option;
- Preparation of an Environmental Report in 2010 for a Mid-West corridor (this process was superseded in late 2010 following a change in Government); and
- The current EES process which formally commenced in 2013.

Following completed planning investigations and extensive stakeholder consultation, VicRoads has gained significant knowledge of the existing environmental, social and economic conditions and community values in the Echuca-Moama region.

2.2 The Project

The Echuca-Moama Bridge Project (the Project) involves building and operating a second road bridge crossing of the Murray and Campaspe Rivers at Echuca-Moama. The Project extends between Echuca (within Victoria) and Moama (in New South Wales) and is therefore subject to both Victorian and New South Wales assessment and approvals processes. As part of the EES (within Victoria), the proposed alignment is assessed against a 'No Project' option which assumes existing road conditions and networks remain unchanged. In NSW a Review of

Environmental Factors (REF) is being prepared to consider the Project's construction and operational impacts.

The Project includes a Right-of-way (road corridor) wide enough to build a four lane road and twin bridges across both rivers. The Project includes an elevated roadway and extensive bridging across the Campaspe and Murray River floodplains, as well as changes to existing approach roads.

Construction of the Project would be staged to meet traffic demands and includes the Initial Alignment and provision for an Ultimate Duplication. The Initial Alignment includes a single carriageway with two lanes in either direction. The Ultimate Duplication provides for an additional carriageway, resulting in two lanes in both directions and duplicated bridges adjacent to the bridges on the Initial Alignment. As the Project will reserve and acquire land for the Ultimate Duplication, the EES assessment will consider the potential impacts and benefits of the Ultimate Duplication. This Economic Impact Assessment identifies and quantifies the benefits and impacts of the Mid-West Option with reference against the no project option for both construction and operational phases of the Project.

2.2.1 Project Objectives

The Project objectives are:

- To improve accessibility and connectivity for the community of Echuca-Moama and the wider region;
- To provide security of access with a second flood free crossing between Echuca and Moama;
- To enable cross border access for high productivity freight vehicles and oversized vehicles;
- To improve emergency services access between Echuca and Moama during emergency situations and major tourist and flood events;
- To provide road infrastructure that supports:
 - the state (Vic and NSW) and national economies through improved connectivity of goods and services; and
 - the local and regional economy of Echuca-Moama.

2.2.2 Preferred Alignment

VicRoads completed an alignment options assessment based upon information from previous assessments and existing conditions in the area. The result was the selection of a preferred alignment for consideration by specialists. The alignment, known as the "Mid-West" Option was found to be the better performing option when considering a balance between environmental, social and economic considerations. The alignment is around 4.3km long and uses existing road infrastructure along part of Warren Street (Echuca-Cohuna Road), removes the least amount of vegetation and has the least amount of raised road formation and bridging, impacting on the overall Project cost. Refer to the Echuca-Moama Project EES Main

Report for more details on alignment option assessment to support the selection of the Preferred Alignment.

The Preferred Alignment extends from the Murray Valley Highway along Warren Street before diverting to the northwest where it extends to the west of Victoria Park Oval. The alignment then turns north-east to cross the Murray River before extending north to connect with the Cobb Highway (Refer Figure 2.1).

More specifically, the Preferred Alignment comprises:

- a new roundabout at the intersection of the Murray Valley Highway;
- upgrade works along Warren Street, including widening of the road pavement, shoulder sealing, upgrading flood relief structures, line marking and intersection upgrades at Homan Street and Redman Street;
- integration with the service road on the western side of Warren Street between Homan Street and Redman Street;
- provision of a dedicated right-turn lane for slow moving funeral traffic entering Homan Street;
- construction of a new 'three-leg' roundabout on Warren Street approximately 120 metres south of Campaspe Esplanade;
- construction of a new road extending north-west from Warren Street roundabout, across the floodplain incorporating;
 - a new bridge across the Campaspe River and Crofton Street;
 - extending north over part of the former Echuca High School site with a raft slab on the edge of an existing remnant sand hill;
 - extending north-east over the western end of the tennis courts in Victoria Park and to the north of the Echuca Caravan Park;
 - a new bridge over the Murray River near the existing boat ramp;
 - an elevated road east of the Murray River to connect with a realigned Meninya Street (the existing Cobb Highway) and a new signalised intersection; and
- signalisation of the intersections at Cobb Highway and Perricoota Road and Cobb Highway and Francis Street.

The main construction activities associated with the Project would comprise:

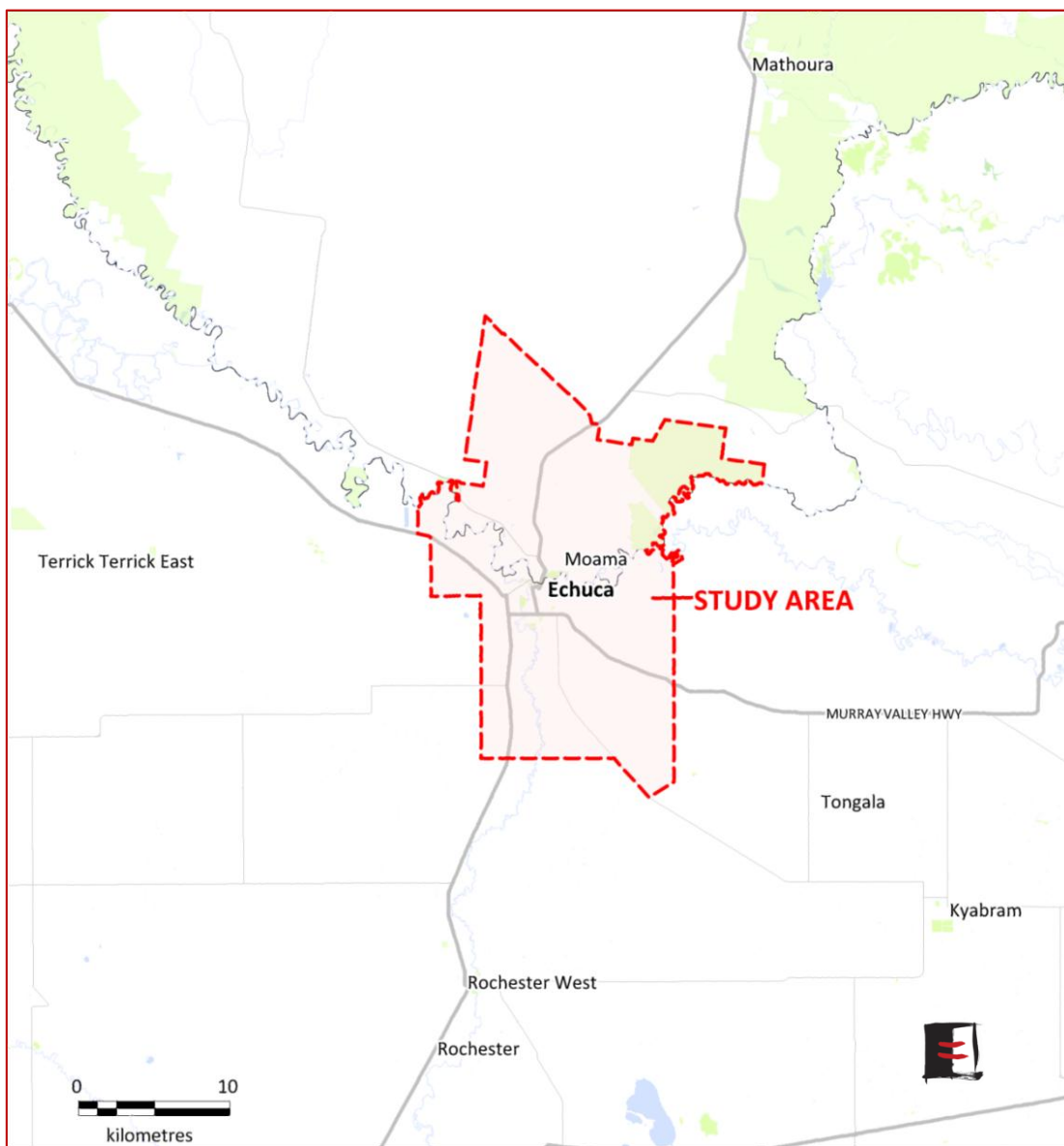
- civil and structural works associated with the construction of new elevated roadway and bridges across the Murray and the Campaspe River;
- construction of earthworks and flood relief structures for the new Link Road across the Murray River and Campaspe River floodplains; and
- improvements to existing roads and intersections on approaches in Victoria and New South Wales, including the construction of a large diameter roundabout at the Murray

2.3 Study Area

The study area for this economic impact assessment comprises the townships of Echuca and Moama as defined by the Australian Bureau of Statistics (ABS) under the Echuca-Moama Significant Urban Area (SUA), as indicated in Figure 2.2.

With regard to retail spending, a larger area is used which more accurately reflects the Echuca-Moama trade area (refer to Figure 3.2), while the value of agricultural production is based on data for the Campaspe and Murray shires as no data is available at the Echuca-Moama level (refer to 3.2.4).

Figure 2.2: Echuca – Moama Study Area



Produced by Essential Economics with MapInfo, StreetPro and ABS

3 EXISTING CONDITIONS

3.1 Methodology

The existing conditions assessment for the Study Area included an analysis of the following factors:

- Existing and future population levels
- Existing and future age structure
- Industry structure
- Business structure
- Key sectors (agriculture, tourism, town centre services, industrial)
- Labour force structure
- Key employment nodes

3.2 Study Area Characteristics

The study area characteristics include existing and projected population levels, population age structure, industry structure, profiles of selected industry sectors, labour force analysis, and mapping of key business locations.

3.2.1 Population

Echuca

Echuca, which is located in Campaspe Shire, is projected to experience an increase in population from 13,830 persons in 2011 to reach 16,260 persons by 2031. This represents a net population expansion of 2,430 persons over the period, and an annual average growth rate of 0.8%. A review of expected demographic trends between 2011 and 2031 shows growth in all age cohorts; however, strongest growth is expected in the Empty Nesters and Retiree (60 to 69-years of age), Seniors (70 to 84 years of age) and Elderly Aged cohorts (85 and over), with annual average growth rates of 1.4%, 2.5% and 1.2% respectively over the period.

This information is sourced from Forecast id, and is shown in Table 3.1.

Table 3.1: Population Projections Echuca 2011 to 2031

	2011		2031		Change 2011 to 2031	
	No.	%	No.	%	No	% AAGR
Babies and pre-schoolers (0 to 4)	910	6.6	990	6.1	+80	+0.4%
Primary schoolers (5 to 11)	1,320	9.5	1,510	9.3	+190	+0.7%
Secondary schoolers (12 to 17)	1,180	8.5	1,270	7.8	+90	+0.4%
Tertiary education and independence (18 to 24)	1,150	8.3	1,250	7.7	+100	+0.4%
Young workforce (25 to 34)	1,440	10.4	1,680	10.3	+240	+0.8%
Parents and homebuilders (35 to 49)	2,740	19.8	2,840	17.5	+100	+0.2%
Older workers and pre-retirees (50 to 59)	1,810	13.1	1,940	11.9	+130	+0.3%
Empty nesters and retirees (60 to 69)	1,500	10.8	1,970	12.1	+470	+1.4%
Seniors (70 to 84)	1,430	10.4	2,360	14.5	+930	+2.5%
Elderly aged (85 and over)	350	2.5	440	2.7	+90	+1.2%
Total persons	13,830	100.0	16,260	100.0	+2,430	+0.8%

Source: Forecast id
AAGR = Annual Average Growth Rate

Moama

Moama is located in Murray Shire, which is one of the fastest-expanding municipalities in NSW. While specific population projections are not available for Moama, projections for Murray Shire (sourced from the NSW Department of Planning and Natural Resources) indicate the population of the municipality is expected to increase from 7,150 persons in 2011 to 8,850 persons in 2031. This population of Moama was 5,560 persons in 2011 according to the ABS Census for 2011, which represents 78% of the Shire's total population. Assuming Moama retains this population share over the 2021-2031 period, then its total is projected to increase to 6,880 persons by 2031. This growth represents an increase in Moama's population of 1,320 persons over the period 2011-2031, and an average annual growth rate of 1.1%.

Forecasts relating to the future age structure of Moama are not available, although available age projections for the Murray Shire show a similar pattern to those observed for Echuca. This data shows the proportion of the 65+ year old population will increase from 25% in 2011 to 37% by 2031. In view of the fact that Moama accommodates nearly one-in-eight of the Shire's population, it is reasonable to expect that a similar future age structure would apply to the township.

Echuca-Moama

In total, the population of the Echuca-Moama region is estimated to increase from 19,410 persons in 2011 to 23,140 persons in 2031, representing a net increase of +3,730 persons (or 20%) over the period and at an annual average growth rate of 1.0%. These figures are shown in Table 3.2.

Table 3.2: Forecasts of Population Growth in Echuca-Moama, 2011 to 2031

Location	2011	2031	Change 2011 - 2031	Annual Average Growth Rate
Echuca	13,850	16,260	+2,430	+0.8%
Moama	5,560	6,880	+1,320	+1.1%
Total	19,410	23,140	+3,730	1.0%

Source: Forecast id; NSW Department of Planning and Natural Resources; ABS Census of Population and Housing 2011; Essential Economics.
Figures rounded

3.2.2 Industry Structure

Echuca-Moama's industry structure (which measures the industry of employment for residents) shows a strong focus on retail trade (13.6%), manufacturing (12.8%), health care and social assistance (12.8%), accommodation and food services (11.6%), and construction (9.4%). These five sectors account for over 60% of all regional employment. This data, which is sourced from the ABS Census 2011 and presented in Table 3.3, highlights the regional role of Echuca in terms of retail, health and other service provision, as well as highlighting the strength of the tourism sector in the broader areas focused on the attractions of the Murray River. Both Echuca and Moama have strong industry sectors, with significantly-sized industrial estates located in each township which support manufacturing, construction, agriculture, wholesale trade and other industry-related activities.

In comparison to Victorian and NSW industry structures, Echuca-Moama has significantly greater proportions of resident workers in agriculture, forestry and fisheries, manufacturing, construction, retail trade and accommodation and food services, but much lower proportions in wholesale trade, transport, postal and warehousing, information, media and telecommunications, finance and insurance services, professional, scientific and technical services, and administrative and support services.

Echuca-Moama's Key industry sectors are further described in the following sections.

Table 3.3: Industry Structure, Selected Locations 2011

Industry sector	Echuca		Moama		Echuca-Moama Region		VIC	NSW
	No.	%	No.	%	No.	%	%	%
Agriculture, Forestry and Fishing	172	2.9%	150	6.5%	322	3.9%	2.3%	2.2%
Mining	20	0.3%	0	0.0%	20	0.2%	0.4%	1.0%
Manufacturing	820	13.7%	240	10.5%	1,060	12.8%	10.7%	8.4%
Electricity, Gas, Water and Waste Services	46	0.8%	14	0.6%	60	0.7%	1.1%	1.1%
Construction	570	9.5%	211	9.2%	781	9.4%	8.3%	7.3%
Wholesale trade	162	2.7%	77	3.4%	239	2.9%	4.5%	4.4%
Retail Trade	817	13.6%	308	13.4%	1,125	13.6%	10.8%	10.3%
Accommodation and Food Services	655	10.9%	303	13.2%	958	11.6%	6.1%	6.7%
Transport, Postal and Warehousing	206	3.4%	67	2.9%	273	3.3%	4.7%	4.9%
Information Media and Telecommunications	44	0.7%	18	0.8%	62	0.7%	2.0%	2.3%
Financial and Insurance Services	89	1.5%	44	1.9%	133	1.6%	4.1%	5.0%
Rental, Hiring and Real Estate Services	58	1.0%	30	1.3%	88	1.1%	1.4%	1.6%
Professional, Scientific and Technical Services	191	3.2%	89	3.9%	280	3.4%	7.8%	7.9%
Administrative and Support Services	90	1.5%	49	2.1%	139	1.7%	3.3%	3.3%
Public Administration and Safety	271	4.5%	103	4.5%	374	4.5%	5.3%	6.1%
Education and Training	453	7.6%	144	6.3%	597	7.2%	8.0%	7.9%
Health Care and Social Assistance	804	13.4%	253	11.0%	1,057	12.8%	11.6%	11.6%
Arts and Recreation Services	126	2.1%	53	2.3%	179	2.2%	1.7%	1.5%
Other Services	265	4.4%	76	3.3%	341	4.1%	3.6%	3.7%
Inadequately described or not stated	136	2.3%	62	2.7%	198	2.4%	2.4%	2.5%
Total employed persons aged 15+	5,995	100.0%	2,291	100.0%	8,286	100.0%	100.0%	100.0%

Source: ABS Census of Population and Housing, 2011

3.2.3 Business Structure

Echuca-Moama has approximately 1,940 businesses (as of June 2013) and a varied business mix. As Table 3.4 shows, Echuca-Moama's business structure is underpinned by a number of key sectors such as town centre services – ie retail trade, financial and insurance services, rental, hiring and real estate services, accommodation and food services (collectively 631 businesses or 33% of all businesses), construction (collectively 401 business or 21% of all businesses), and agriculture forestry and fisheries (collectively 248 businesses or 13% of all businesses).

In terms of other sectors with a specific reliance on the movement of goods, Echuca-Moama has 220 businesses associated with transport, postal and warehousing services; manufacturing; and wholesale trade. This grouping represents 11% of all businesses.

When compared against the business structures of Victoria and NSW, Echuca-Moama has a considerably higher proportion of businesses associated with agriculture, construction, retail, accommodation and food services; but lower proportions associated with wholesale trade, transport, postal and warehousing, information, media and telecommunications, finance and insurance services, professional, scientific and technical services, and administrative and support services – which broadly reflect the region's industry structure discussed in 3.2.2.

Table 3.4: Business Structure, Echuca-Moama 2013

Industry Sector	Echuca		Moama		Echuca-Moama Region		VIC	NSW
	No.	%	No.	%	No.	%	%	%
Agriculture, Forestry and Fishing	192	12.4%	56	14.4%	248	12.8%	7.8%	7.5%
Mining	0	0.0%	0	0.0%	0	0.0%	0.2%	0.3%
Manufacturing	65	4.2%	25	6.4%	90	4.6%	4.4%	3.8%
Electricity, Gas, Water and Waste Services	3	0.2%	3	0.8%	6	0.3%	0.3%	0.3%
Construction	311	20.0%	90	23.1%	401	20.6%	16.3%	15.0%
Wholesale Trade	40	2.6%	12	3.1%	52	2.7%	4.0%	3.9%
Retail Trade	166	10.7%	18	4.6%	184	9.5%	6.7%	6.7%
Accommodation and Food Services	90	5.8%	25	6.4%	115	5.9%	4.0%	4.0%
Transport, Postal and Warehousing	60	3.9%	18	4.6%	78	4.0%	6.1%	6.3%
Information Media and Telecommunications	7	0.5%	0	0.0%	7	0.4%	0.9%	1.2%
Financial and Insurance Services	100	6.4%	17	4.4%	117	6.0%	8.0%	7.9%
Rental, Hiring and Real Estate Services	171	11.0%	44	11.3%	215	11.1%	10.2%	10.7%
Professional, Scientific and Technical Services	85	5.5%	24	6.2%	109	5.6%	12.2%	12.8%
Administrative and Support Services	38	2.4%	10	2.6%	48	2.5%	3.7%	4.1%
Public Administration and Safety	7	0.5%	0	0.0%	7	0.4%	0.4%	0.5%
Education and Training	9	0.6%	6	1.5%	15	0.8%	1.3%	1.3%
Health Care and Social Assistance	74	4.8%	15	3.8%	89	4.6%	4.8%	5.2%
Arts and Recreation Services	15	1.0%	3	0.8%	18	0.9%	1.3%	1.4%
Other Services	88	5.7%	14	3.6%	102	5.3%	4.0%	4.0%
Unknown	31	2.0%	10	2.6%	41	2.1%	3.3%	3.2%
Total	1,552	100.0%	390	100.0%	1,942	100.0%	100.0%	100.0%

Source: ABS Counts of Australian Businesses, including Entries and Exits, Jun 2009 to Jun 2013

3.2.4 Profile of Agricultural Sector

Products

Agricultural production in Campaspe Shire is mainly focused on dairy and beef cattle, cereal crops, tomatoes, sheep and wool, vegetables, and cereal cropping. The Shire is also expanding into viticulture and wine production. Kyabram, which is one of the larger towns in Campaspe, is a major fruit production area for Victoria, and grows apples, pears, peaches, apricots, nectarines, plums and nashi. (Submission to Agricultural Competitiveness Issues Paper, Campaspe Shire Council, April 2014).

The Murray Shire also has a diverse agriculture sector. Crops include wheat, barley, canola, clover hay, lucerne, wool, oranges, rice, goats, peas, beans, hydroponic tomatoes, oats, maize (corn) and olive groves; this is supplemented by dairy farming, agistment, cattle farming (especially goats), and vineyards. Agricultural production is aided by good access to a skilled agricultural workforce and a temperate climate. (Response to Consultation Paper “Strengthening Your Community”, Murray Shire Council, September 2012).

Business and Employment

Approximately 13% of businesses in Echuca-Moama (248 businesses) are associated with agriculture, forestry and fisheries activities, with only the construction sector having a greater business representation (401 businesses).

Agriculture is one of the largest employing industries in both the Campaspe and Murray shires, and in 2011 (ABS Census) was responsible for approximately 13% and 18% of all jobs in the shires, respectively, and directly employs approximately 2,420 persons across the two shires.

Indirectly, many more jobs are supported through activities associated with agriculture, including transport and storage, packaging, stock feed, chemicals, agricultural machinery and parts, administration, irrigation services and so forth. This interrelationship between agriculture and other sectors highlights the critical importance of farming and its future development for the health of the regional economy.

Key agricultural and food processing businesses located in the Echuca-Moama region include Fonterra, Kagome, Heinz Watties, and Simplot.

Production

The Gross Value of Agricultural Production (GVAP) in Campaspe Shire is estimated at \$500 million pa (Source: Campaspe Shire Council – *Submission to Agricultural Competitiveness Issues Paper*, April 2014), while Murray Shire has an estimated GVAP of \$100 million pa (source: NSW Trade and Investment 2014). Overall, the two shires have an annual GVAP of \$600 million pa.

Note, agricultural production data is not available at a smaller geographical level.

Echuca & District Livestock

The Echuca & District Livestock Exchange is a modern facility which has the latest in technology with Livestock Exchange software and ALEIS scanning equipment to provide for the National Livestock Identification Scheme (NLIS) (refer to Figure 3.3).

The Exchange is the largest horse-selling centre in Australia, with an average yarding of approximately 2,500 horses per year (through fortnightly sales). A wide-range of horses (including Shetlands and Clydesdales) from all over Victoria, NSW and South Australia are sold at the regular Echuca horse sale.

Echuca's prime cattle sales (also held fortnightly) have an average yarding of 1,000 head for each sale (or 25,000 head per year). Seven Stock Agents operate at Echuca's prime cattle market and, with an average of approximately 20 buyers attending each sale, act on behalf of up to 40 different abattoirs or feed lots.

Other sales held at Echuca are a monthly store cattle sale; this sale is held on the first Monday of every month, except January. Dairy cattle sales are held on the second and fourth Friday of each month. Other dairy sales are held during spring and autumn.

Several local stock transporters are available in the region to cater a variety of needs (including B-Double transportation and small tray trucks). In addition, two major livestock carriers

operate out of the Echuca & District Livestock Exchange and provide trucking services that cover most of Australia.

3.2.5 Tourism

The Echuca-Moama region is very popular with visitors from within Victoria and southern NSW, but it also attracts visitors from other States and overseas. Echuca-Moama's tourist sector is advantaged by its relative close proximity to metropolitan Melbourne (2.5 hours' drive time), making Echuca-Moama a more desirable Murray River location than other destinations such as Swan Hill and Mildura, each of which are located further afield.

The main attractions of the region are anchored by the activities afforded by the Murray River and include fishing, paddlesteamers, house-boating, water skiing, camping and the like. Other popular attractions are associated with Echuca's Heritage Port and shopping precinct, the region's local produce and wineries, and Moama's many sporting and gaming clubs.

Specific attractions include the world's largest collection of paddlesteamers in the Port of Echuca, Sharps Magic Movie House, and the redgum furniture-making activities. Echuca and Moama host annual events which include the Southern 80 Ski Race, the Riverboats Music Festival, the Winter Blues Festival, Echuca Steam Rally and the Heritage Steam Festival. The Echuca-Moama Market, which is located on the banks of the Murray River and operates throughout the year, is also a big attractor for visitors.

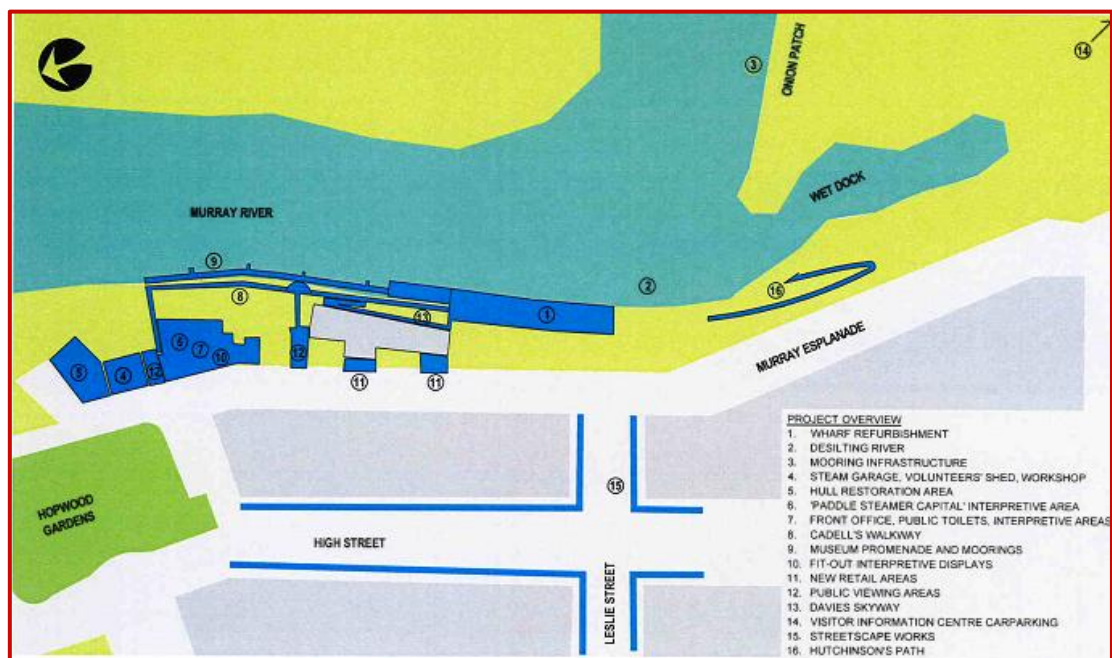
The Port of Echuca is a working heritage steam port and is the principal attraction for the region. The Port's assets include several properties such as the Star Hotel, riverfront building which used to house Oscar W's Redgum Grill & Deck Bar restaurant, the heritage wharf, and a fleet of paddle steamers which are integral to the tourism experience on the Murray River.

The Port of Echuca Revitalisation Project is a \$14.2 million investment project, jointly funded through joint Federal, State and Council financial contributions. The main components of the revitalisation project are shown in Figure 3.1 and include wharf rehabilitation, a new Interpretive Centre, and significant streetscape improvements.

Campaspe Shire Council estimate the Port is responsible for over 40% of the region's visitation, and that an additional 22,000 visitors are expected to be attracted to the Port due to the revitalisation project, thus further boosting tourism in the Echuca-Moama region.

The Port of Echuca Discovery Centre was officially opened on 14 December 2013 (refer to Figure 3.1).

Figure 3.1: Port of Echuca Revitalisation Project Overview



Source: Campaspe Shire Council – Port of Echuca Revitalisation Fact Sheet

Moama also has a number of visitor attractions and these include the Moama Bowling Club, Moama RSL Club, Morrisons Winery, and the Rich River Golf Club.

Tourism Victoria data (*Travel to the Murray Region, Year ended March 2014*) which is included in Table 3.5, shows Echuca-Moama received approximately 700,000 domestic and international overnight visitors in the 12 months to March 2014. These visitors spent approximately 2.0 million nights in the region. A further 500,000 domestic daytrip visitors came to the region over the 12 month period. Approximately 60% of all visitors came to the region for holiday or leisure purposes, with a further 25% visiting family and friends and the remaining 15% coming to the region for employment, business or personal appointments.

In total, the Echuca-Moama region generated approximately \$300 million in visitor spending in the year ending March 2014, comprising \$250 million from overnight visitors and \$50 million from day-trippers.

Table 3.5: Estimated Visitor Numbers and Spending, Echuca-Moama 12 Months to March 2014

	Echuca-Moama	Visitor Nights	Visitor Spending
Overnight visitors	700,000	2,000,000	\$250 million
Day trip visitors	500,000	-	\$50 million
Total	1,200,000	2,000,000	\$300 million

Source: Travel to the Murray Region, Year ended March 2014, Tourism Victoria

Note: Figures rounded

Visitor Accommodation

A significant number of visitor accommodation providers are located in Echuca and Moama and these businesses are important to the region's tourism sector. Approximately 40 commercial hotel/motel operations are located in the Echuca-Moama region, and a further 15 Caravan/Holiday parks are located either side of the border. While precise figures are not available at a township level, an estimated 1,000 motel/hotel/serviced apartment rooms and a further 3,000 or so cabins and caravan sites are available in the Echuca-Moama region, according to a review of Tourism Victoria's small area data (based on information for Campaspe and Murray shires).

This level of commercial accommodation is supplemented by many private holiday house lettings and also other options, such as riverboat accommodation.

Value of Tourism Expenditure

Overall, the tourism figures highlight the importance of this sector to the Murray and Campaspe economies in terms of employment, accommodation takings, and visitor spending (which supports a wide range of business activities).

As Echuca and Moama are located on the Murray River, and as the River and environs are the focus for so much of the tourism base, it is reasonable to conclude that tourism activities are very important to these two towns, especially in the case of Echuca where the River environment is intrinsically linked to the town centre's retail and commercial activities and its popular heritage area.

Tourism to the region can be expected to increase over time due to improvements in the visitor offer, involving for example increased attraction of the Port of Echuca and Heritage Precinct, and improved visitor facilities etc. Significant population expansion is forecast in Victoria over the coming 20 years or so and, assuming the region retains its current share of domestic visitation, this will create additional ongoing demand for tourism to Echuca and Moama – particularly as the Murray Tourism Region relies almost entirely on domestic visitors from Victoria. By way of illustration, each 1% uplift in visitation to the Echuca-Moama region would represent 12,000 additional visitors and 20,000 visitor nights per year.

This ongoing increase in visitation to Echuca and Moama is likely to be mainly car-based (recognising the relatively limited public transport options available); thus, the provision of a second bridge will assist in reducing demand on the existing bridge, especially as the existing bridge is a particular problem in terms of carrying capacity/congestion during peak holiday periods and for major events such as the Southern 80 Ski.

3.2.6 Profile of Town Centre Services

Catchment Served

The provision of town centre services is important in terms of economic activities in Echuca and Moama, although Echuca (as a major Regional Centre) is the more dominant in terms of the extent and types of retail, commercial and other services on offer.

Echuca serves a catchment of 40,790 people, all of whom live within reasonable commuting distance (up to 40 km) and who use Echuca for regular shopping experiences. In addition to the Campaspe residents, this catchment also includes residents of Barmah and Tongala (in Victoria) and Mathoura (in NSW). The catchment, which is illustrated in Figure 3.2, is expected to expand to over 48,600 persons by 2031, as shown in Table 3.6.

Echuca's town centre includes a full range of major retailers (for example, Woolworths, Coles, Big W, Aldi, Dan Murphy's etc), business services (such as real estate, insurance, legal etc), accommodation, entertainment, and dining options, all of which are generally only found in larger regional centres. In contrast, Moama offers a more limited range of services, but does have a full-line supermarket (Woolworths) and associated specialty shops, together with facilities which include a post office, visitor accommodation, pubs, clubs, dining, and trade-related and transport businesses.

Table 3.6: Echuca Town Centre's Service Catchment (40km Radius) 2014 to 2031

Catchment	2014	2016	2021	2026	2031
Population (no. persons)	40,790	41,350	43,550	46,050	48,650
Average Annual Growth (%)	-	0.68%	1.04%	1.12%	1.10%
Average Annual Growth (no. persons)	-	280	440	500	520

Source: DTPLI, *Victoria in Future 2014*; NSW State and Regional Population Projections, 2014 release; ABS; Essential Economics

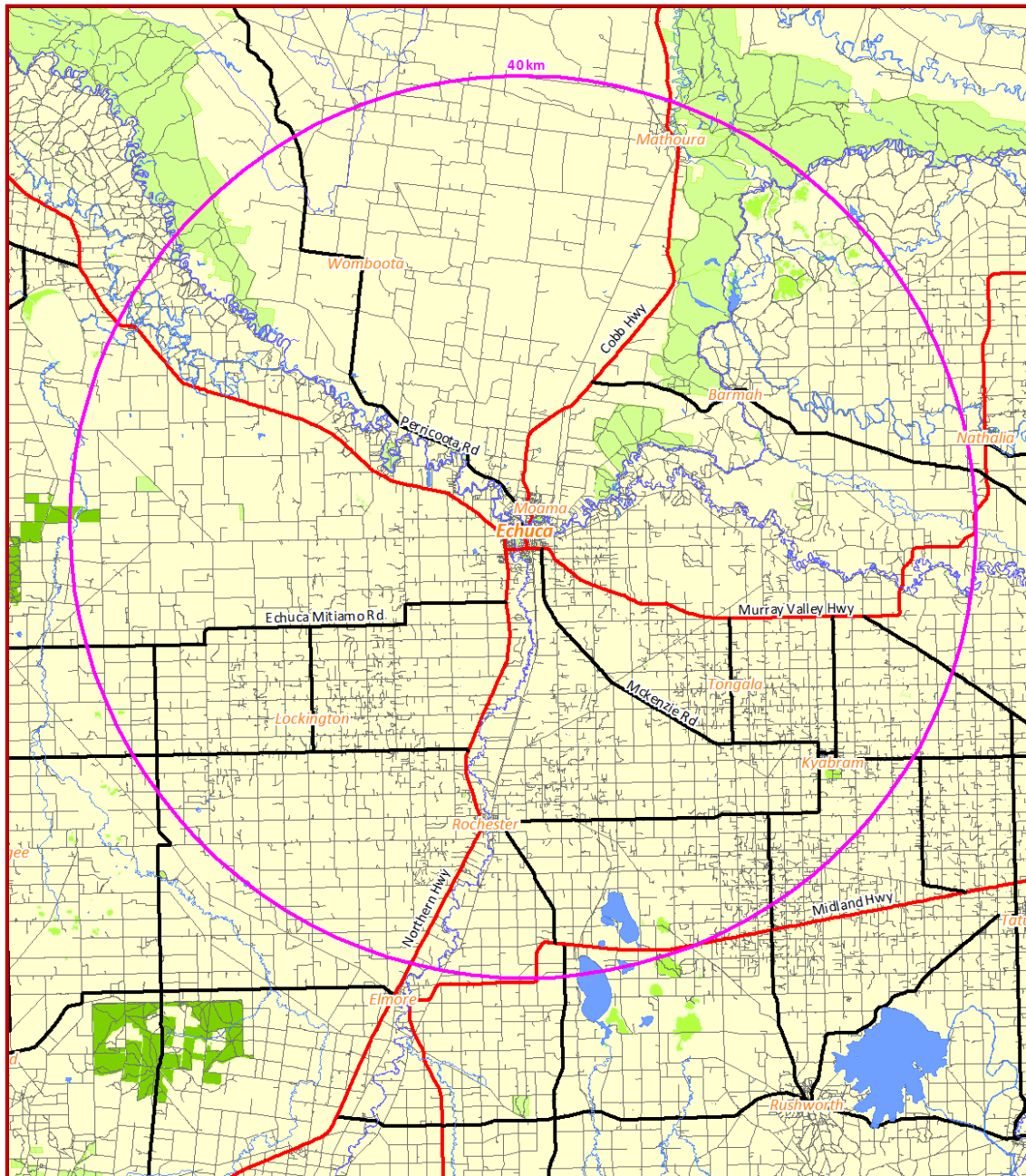
Value of the Retail Sector

The value of the retail sector to Echuca-Moama region can be measured by the available retail spending of people living in the surrounding catchment, and by the town centre's retail floorspace provision, its level of retail sales, and its market share.

In terms of retail spending, the catchment population generated a total of approximately \$525 million pa in 2014. This figure is based on the catchment of 40,790 persons and an average retail spend of \$12,860/capita (based on MarketInfo retail model). This spending is forecast to increase to some \$845 million pa (expressed in constant 2014 dollars) by 2031, and represents an average annual growth rate of 2.8% pa over the period. Some of the catchment spending is directed to retailers in Echuca and Moama, but other centres located within the 40 km catchment (such as Rochester, Kyabram and smaller centres) also attract spending. A share of retail spending is also captured in centres located further afield, such as Bendigo, Shepparton and Melbourne.

Table 3.7 shows the retail spending forecasts to 2031.

Figure 3.2: Echuca-Moama Regional Retail Catchment (40km from Echuca-Moama)



Source: Map prepared by Essential Economics based on Council information, 2014

Table 3.7: Total Available Retail Spending of Echuca Catchment Residents (in 2014 dollars)

Retail Category	2014	2031	Total Growth 2014-2031
Food Liquor and Groceries	\$236.3 m	\$320.1 m	+\$83.8 m
Food Catering	\$39.2 m	\$63.3 m	+\$24.1 m
Non-Food	\$232.1 m	\$433.0 m	+\$200.9 m
Services	\$17.1 m	\$29.3 m	+\$12.2 m
Total Retail	\$524.6 m	\$845.6 m	+\$321.0 m

Source: Essential Economics, Table 3.6 (population); MarketInfo (retail spend/capita)

The above calculations showing growth in retail spending (in real terms that is excluding inflation) demonstrate that the Echuca town centre has considerable growth potential over the next 20 years. This growth is due to increases in residential catchment population and increases in visitor numbers, as well as real growth in per capita spending by both residents and visitors. These growth components will support additional town centre activities, including additional retail floorspace.

Similarly, the Moama town centre is also expected to expand over time, especially as the number of township residents increases and as more people come to live in other parts of the Murray Shire. Moama accounts for approximately 80% of Murray Shire's total population.

In addition to retail activity, other commercial activities can be expected to increase in Echuca and in Moama as resident population numbers expand and as residents' available spending increases in real terms. This increase in activity includes growth in commercial office activities, professional suites (such as lawyers, accountants, etc), personal and healthcare services (including the major expansion to Echuca Hospital), community services, and demand generated by increased industrial activities (such the proposed Wool Gin development and expanding industrial precincts on both sides of the border). This potential commercial growth is expected to occur principally in Echuca in view of the town's role as the main centre serving the surrounding catchment; Moama would also expect some growth in these town centre-based activities.

Overall, it is considered that this growth in town centre activities has implications for the second bridge because:

- more people will be living in Echuca-Moama and in the surrounding catchment located on either side of the Murray River;
- more people will be seeking access to town centre facilities and services;
- growth will occur in town centre facilities and services to meet these expanding needs;
- most of these facilities and services will continue to be located in the Echuca town centre, with a smaller share expected to locate in Moama (and hence, continuing growth in cross-river traffic); and
- an increasing number of retail and other businesses will be reliant on bridge crossings in the future for deliveries, support services, workforce movements, inter-business connections and so on.

3.2.7 Profile of Industrial Sector

Both Echuca and Moama have significant industrial areas which contain many businesses and associated workforce. Figure 3.3 shows the locations of these industrial areas on either side of the border. A wide range of businesses are located in these industrial areas, including:

- Food processing
- Transport and storage
- Engineering
- Auto-mechanics
- Rural supplies
- Cabinet makers
- Plumbing supplies
- Wholesaler and distribution
- Manufacturers (such as tanks, pumps, silos)

Importantly, interdependence between the industrial nodes is in evidence through deliveries, truck and machinery repairs and other business service activities. In the context of the second bridge, ease of access between these industrial areas should be a key consideration. Additionally, a significant number of highway businesses are located in the region (especially in Echuca), including car showrooms, homemaker operators (Bunnings) and the like, all of which are reliant on cross-border suppliers and customers.

The principal industrial and highway nodes located in the Echuca-Moama region are described as follows:

Echuca

- Major industrial area located south of Ogilvie Avenue, between the railway and Murray Valley Highway
- Small industrial area located north of Ogilvie Avenue, between the railway line and Bowen Street
- Major Commercial 2 Zone along Ogilvie Avenue, east of Cornelia Creek Road
- Commercial 2 Zone located on Murray Valley Highway, North-West of Ogilvie Avenue

Moama

- Large industrial area located in central Moama, between Echuca Street and Regent Street
- Large industrial area (Moama Business Park) located north of Moama on Cobb Highway

3.2.8 Labour Force

Unemployment

The Echuca-Moama region has a relatively high unemployment rate compared to State averages. As of June 2014 Echuca-Moama had an unemployment rate of 6.3%, which is above the Victorian average of 6.2% and NSW average of 5.7%.

In June 2014, 575 labour force participants in Echuca-Moama were unemployed.

Labour market data is sourced from the Department of Employment (Small Area Labour Markets June Quarter, 2014) and is included in Table 3.8.

Table 3.8: Labour Force Statistics, Selected Locations, June 2014

	Employed	Unemployed	Labour Force	% Unemployed
Echuca SA2	6,375	455	6,830	6.7%
Moama SA2	2,140	120	2,260	5.3%
<i>Echuca-Moama</i>	8,515	575	9,090	6.3%
Victoria	2,862,100	189,200	3,051,300	6.2%
New South Wales	3,598,100	217,000	3,815,100	5.7%

Source: Department of Employment – Small Area Labour Markets, June Quarter, 2014

Note: Figures rounded

Occupations

Echuca-Moama's occupational structure, which is included in Table 3.9, shows approximately 3,000 workers are involved in construction-related activities such as technicians and trades, machinery operators and drivers, and labourers. These occupations represent 35% of all occupations and highlight the strong existing construction-base in the region, especially when compared to representation of these occupations across Victoria (29%) and NSW (28%).

Table 3.9: Occupational Structure, Selected Locations 2011

Occupation	Echuca-Moama		VIC	NSW
	No.	%	%	%
Managers	1,168	13.7	13.2%	13.3
Professionals	1,269	14.9	22.3%	22.7
Technicians and trades workers	1,332	15.7	13.9%	13.2
Community and personal service workers	982	11.6	9.3%	9.5
Clerical and administrative workers	948	11.2	14.4%	15.1
Sales workers	985	11.6	9.7%	9.3
Machinery operators and drivers	571	6.7	6.1%	6.4
Labourers	1,088	12.8	9.0%	8.7
Inadequately described/Not stated	156	1.8	2.2%	1.8
Total	8,499	100.0	100.0%	100.0

Source: ABS Census of Population and Housing, 2011

Place of Work for Echuca-Moama Employed Persons

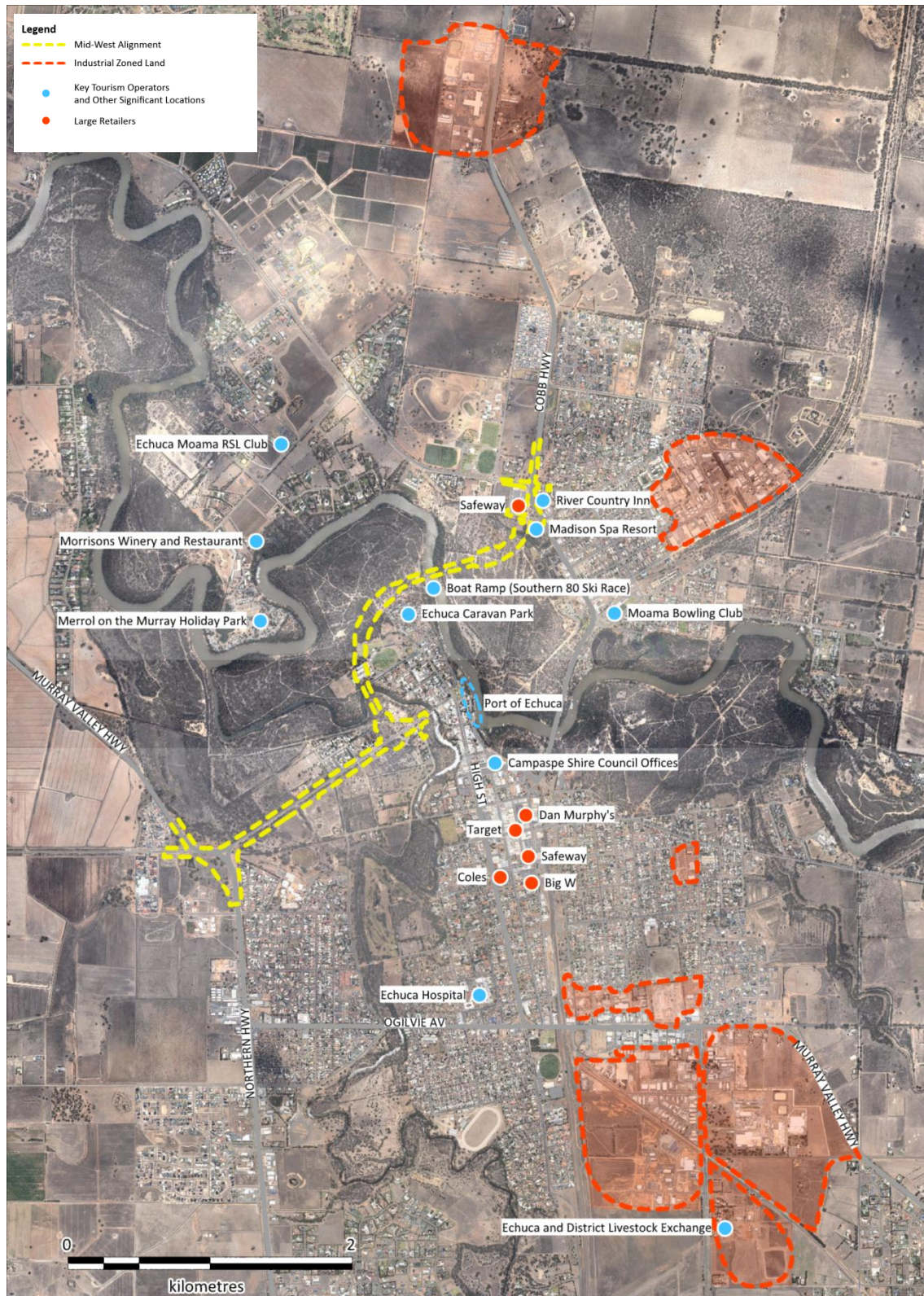
The majority of the resident labour force in both the 'Campaspe Echuca' Statistical Local Area (SLA) and in the 'Murray' municipality are at work in their respective localities: thus, approximately 57% of the resident labour force of 'Campaspe Echuca' work in 'Campaspe Echuca', while 10% work across the river in Murray (A). The remaining 33% of Campaspe Echuca SLA residents predominantly work in other parts of the Shire and other regional Victorian locations.

In terms of bridge crossings, the 10% of residents who work in Murray (A) represent 540 workers. The Place of Work data also shows 1,100 Murray (A) residents travel across the bridge to work in Campaspe Echuca SLA on a daily basis.

In total, approximately 1,640 workers cross the bridge daily to access employment on either side of the border. On an annual basis, this equates to approximately 1 million work-related trips per annum using the existing bridge (i.e. 1,640 x2 daily, x 7 days x 46 weeks).

A wide range of business locations in the Echuca-Moama region are of importance in terms of bridge crossings by workers, customers and clients. These crossings are associated with activities in industrial estates, shopping at major retailers, people using the Echuca Livestock Exchange, people visiting tourist attractions (especially the Port of Echuca), visitors accessing overnight accommodation, and major employing organisations such as Echuca Health and the Shire of Campaspe. Key business locations in the study area are shown in Figure 3.3.

Figure 3.3: Key Business Locations in Echuca Moama



3.2.8 Commercial Accommodation

The construction phases of the project (initial alignment and Ultimate Duplication) are likely to involve some non-regional workers temporarily relocating to Echuca-Moama. Generally, these types of workers will seek commercial accommodation.

Echuca-Moama has a significant and varied supply of commercial accommodation, reflecting the region's important tourism role. Accommodation caters for all types of travellers, with stock including caravan and holiday parks, hostels and backpackers, houseboats, hotels, motels, resorts, serviced apartments, bed and breakfast and private holiday lettings. Rated accommodations ranges from 3.0 star to 4.5 star, highlighting the capability of the region to meet a wide range of requirements.

ABS and RACV data shows Echuca-Moama currently has a commercial accommodation capacity of 1,460 rooms/cabins/powered sites and 4,200 bed spaces. Additionally, a significant number of unpowered caravan park sites, bed and breakfast and other private holiday lettings available in the region.

3.3 Summary

With regard to existing economic and business conditions, the following is noted:

- 1 Significant population growth of +3,730 persons (net increase) is projected in the Echuca-Moama region over the coming 20 years and this will generate increased demand for bridge crossings associated with business, workforce, visitors, and resident activities.
- 2 Echuca-Moama's industry and business structure highlights a strong focus on manufacturing, retail trade, agriculture, tourism, health care and social assistance, and construction. These sectors are heavily reliant on cross-border interactions for deliveries, sales, movement of machinery, visitor access, and labour force movement.
- 3 The existing bridge (and proposed second crossing) is of particular importance to the following sectors:
 - Agriculture: this sector has an annual production value of \$600 million generated by agricultural activities on each side of the border, with the bridge providing access for machinery, and for commercial vehicles carrying crop output, livestock products, and livestock (especially to and from Echuca & District Livestock Exchange).
 - Tourism: this sector attracts 1.2 million visitors each year and generates an estimated \$300 million per annum for the regional economy through visitor spending, in both Echuca and Moama, on accommodation, dining, shopping, sightseeing, events, and tours. The existing bridge provides access to tourists visiting attractions and supporting accommodation providers on either side of the border.
 - Town Centre Services: the retail sector sales are estimated at approximately \$525 million per annum in 2014, and this is expected to increase to approximately \$850m per annum by 2031 (in constant 2014 prices). This growth in spending in real terms

will lead to a requirement for an expansion of retail floorspace on both sides of the border in the long-term, with bridge crossings becoming increasingly important for deliveries, supplies, sales and movement of a larger retail workforce.

- Industrial activities: many construction, manufacturing, food processing, transport, warehousing and other businesses are located in industrial precincts on both sides of the border. The existing bridge accommodates deliveries, sales, and other business interactions between these precincts on either side of the Murray River.
- 4 The Echuca-Moama region has a relatively high unemployment rate (6.3%) compared to State averages (5.7% in NSW and 6.2% in Victoria), with 575 labour force participants unemployed in June 2014. Approximately 35% of workers are occupied in construction-related activities. Many employed labour force participants are very reliant on the bridge to access their place of work (especially Moama residents working in Echuca). At least an estimated 1,640 workers cross the existing bridge each day, and this figure is expected to increase significantly as the region's population and labour force expands in the coming years.
 - 5 The Study Area has a number of important employment and visitor nodes and these include the Port of Echuca, Echuca Livestock Exchange, Echuca Regional Health, Campaspe Shire offices, retail centres, highway showrooms, and industrial estates located in both Echuca and Moama.
 - 6 Echuca-Moama offers a significant supply and range of commercial accommodation which will assist in supporting the housing needs of construction workers temporarily relocating to the region.

The impact of limitations of the existing bridge for employment and commercial activities is discussed in Section 6.1.

4 EES SCOPING REQUIREMENTS

4.1 EES Evaluation Objectives

For the economic impact assessment aspects of the Echuca-Moama Bridge, the relevant draft evaluation objective as outlined in the EES Scoping Requirements is:

“To provide road infrastructure that fosters a viable level of economic performance for the local and regional economy of Echuca-Moama”.

4.2 EES Scoping Requirements

The EES Scoping requirements specific to the scope of this economic impact assessment are as follows:

Key issues for objective

- The proposed new bridge is to reduce economic inefficiencies that exist due to congestion and the limitations on freight crossing the border.

Priorities for characterising the existing environment

- Describe existing barriers to traffic movements across the Murray River, including freight.

Design and mitigation measures

- Identify potential and proposed design responses and measures to optimise economic benefits of the project in terms of increased transport efficiency and freight capacity, as well as to reduce any short-term impacts during construction.

Assessment of likely effects

- Identify effects on the local and regional economy during construction and operation of the bridge (beneficial and adverse).
- Identify further opportunities to be realised through the implementation of the project.

5 LEGISLATION, POLICIES AND GUIDELINES

As part of the Economic Impact Assessment for the Project, it has been necessary to review and consider any relevant legislation, policies or guidelines that apply to this economic assessment.

A summary of these findings is presented in this Chapter.

5.1 State Government

5.1.1 *The Victorian Freight and Logistics Plan*

The Victorian Freight and Logistics Plan (Victorian State Government, 2013) outlines the State Government's long-term strategy to improve freight efficiency, grow productivity and better connect Victorian businesses with their markets, whether local, national or international.

The Plan identifies a number of proposals under consideration to support the State's freight network, which include new Murray River crossings through the sequenced construction of new bridges at Echuca, Swan Hill and Yarrawonga. The Echuca crossing is confirmed as the initial priority project for the Murray River (p79).

5.1.2 *NSW Freight and Ports Strategy*

The NSW Freight and Ports Strategy (Transport for NSW, 2013) identifies how Transport for NSW will work with commercial interests and across government to provide an efficient network and a framework for managing growth. The Strategy highlights short, medium and long-term tasks to improve freight movement on the network. This Strategy will inform government and commercial investment decisions across all modes of transport.

The Strategy identifies the Murray River crossing at Echuca on the Cobb Highway as one of five high priority Higher Mass Limit (HML) deficient bridges requiring replacement in order to improve freight productivity in NSW. Construction of an alternative crossing will deliver a continuous 600km route for HML operations on either side of the border (p 74 and 75).

5.2 Local Government

5.2.1 *Campaspe Shire Council*

Port of Echuca Heritage Policy

The Shire of Campaspe has developed a Port of Echuca Heritage Policy, and the key objectives of this policy (clause 22.03) are as follows:

- To create the Port of Echuca as a nationally significant heritage tourism precinct.
- To protect the heritage character and integrity of the historic port and environs.

- To create a multi-layered tourism experience, including activities specific to the particular attractions and features of Echuca and the region.
- To identify and promote under-developed sectors and themes.
- To consolidate the port precinct as a well-serviced tourism centre, including alternative accommodation types and improved entertainment and services.
- To consolidate a unified heritage precinct and town centre, including stronger pedestrian links.
- To protect key environmental and urban elements through policy, development control mechanisms, incremental relocation of river boat infrastructure, and improved coordination with Murray Shire Council.
- To identify key development sites for preferred uses.
- To extend and consolidate the pedestrian network, including extensive avenue planting and new pavement works.
- To implement the recommendations of the Echuca Heritage Precinct Master Plan.
- To ensure that development enhances the broad boulevard of High Street and which entrenches its strong visual and physical role in the area.
- To encourage sympathetic commercial signage and advertising appropriate for an area of State significance.
- To encourage elements which reflect the character of the area including signage, fences, plant and equipment, and paint colour schemes.
- To ensure that streetscape works enhance the cultural significance of the area with respect to street trees, tree guards, public seating, pavement materials, public lighting and car park furniture.

These objectives highlight the importance of the Port of Echuca Precinct, especially in the context of the recent completion of the \$14.2 million Port of Echuca Restoration Project.

It is therefore of particular importance that the preferred bridge route option addresses existing issues relating to traffic flows and heavy vehicle access to this prime tourist area.

5.2.2 Murray Shire Council

Murray Local Environment Plan 2011

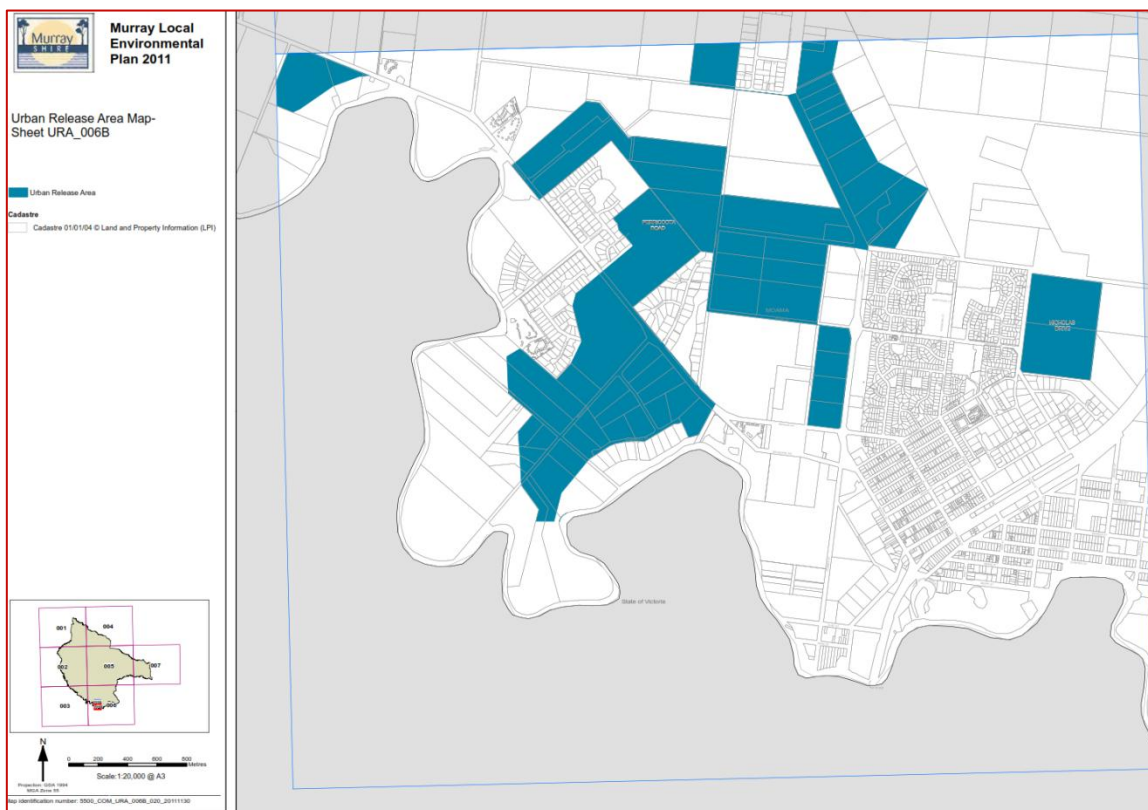
The Murray Local Environment Plan (LEP) was adopted by the NSW State Government in December 2011 and provides an updated planning framework for Murray Shire.

The LEP allows for the release of 200ha of land for new residential development, and a further 50ha of new land for employment purposes. The majority of this land is located in the Moama area (refer To Figure 5.1).

Since the adoption of the Murray LEP, the NSW Planning Minister has approved the rezoning of 27ha of land in Moama for residential development and this is estimated to support the development of 150 to 200 new residential dwellings in the short-term.

The Murray LEP ensures sufficient land is available to support long-term population, business and employment growth in Moama and this will lead to increased river crossing volumes associated with commercial, residential, workforce and visitor activities.

Figure 5.1: Murray Local Environment Plan 2011 – Moama Urban Release Map



Source: Murray Local Environment Plan 2011, Murray Shire Council

Murray Development Control Plan (2012)

The purpose of the Murray Shire Council Development Control Plan (DCP) is:

- to reflect the objectives of the Environmental Planning and Assessment Act 1979;
- to implement the Murray Shire Strategic Land Use Plan 2010-2030;
- to assist in the administration of Murray Local Environment Plan 2011; and
- to provide good planning outcomes for development in the Shire.

The DCP outlines a number of long-term policies and strategies for the Shire that are relevant to the proposed second bridge crossing, including the growth of commercial development and the expansion of tourist accommodation.

With regard to commercial development, the DCP aims to encourage orderly and economic development within the Shire, including the expansion of retail, commercial, professional services and community facilities in convenient locations. The specific objectives of the controls are:

- That new commercial activities are located within the existing commercial centre of Moama.
- Within Moama, the preferred location for 'shops' is in Meninya Street, between Echuca and Blair Streets.
- Commercial activities are to be located in areas accessible to residents and visitors.

New and expanding commercial activities therefore will remain clustered in and around the existing Moama township, generating additional commercial-related bridge crossing demand in the future.

With regard to tourism accommodation, the DCP encourages the development of well-designed, suitably located and sustainable and high quality facilities in the Shire. The specific objectives of the controls are:

- to encourage and promote development of tourist accommodation within the Shire;
- to maximise utilisation and promotion of existing tourist resources;
- to protect the natural environment;
- to provide for tourist oriented activities that are appropriately located; and
- to promote diversification of development types and forms.

The development of the second bridge crossing will need to have regard for the direct and indirect impacts on existing and future tourism activities in the Shire.

Murray Shire Council Community Strategic Plan 2014/15 to 2023/24 ("Strategic Plan")

The Strategic Plan identifies progress with the construction of the Echuca Moama Bridge as major issue for the Shire; specifically, the following is noted (p13):

"The resolution of the location of the siting of the second Echuca Moama Bridge has been an ongoing saga for the Shire, district and regional community since the 1970s.

The first step is to confirm an alignment as a bridge project that is acceptable to all stakeholders. Murray Shire Council will continue to work with VicRoads and RMS and the Government process to achieve this outcome".

The Echuca-Moama Plan (which is included as an appendix to the Strategic Plan) identifies a new bridge as essential infrastructure and regards commitment to constructing the bridge as one of the top economic development priorities for the region.

5.3 Conclusion

In relation to the proposed Echuca-Moama Bridge Project, this policy overview highlights the following:

- 1 Recognition by Victorian and NSW governments of the need to provide an alternative Murray River crossing at Echuca to support efficient freight movement and productivity, with this crossing a priority for both governments.
- 2 The need to ensure the Historic Port of Echuca, as the anchor tourist destination for Echuca-Moama, benefits from the second bridge crossing through a decrease in heavy vehicles accessing the area via the nearby existing bridge.
- 3 The new bridge crossing will support increased cross-border demand requirements (including residential, commercial and tourist-related) stimulated by Moama's expected strong population expansion in the coming years and supported by the Shire's Local Environment and Development Control plans.
- 4 The construction of the second bridge aligns with one of Murray Shire's top economic development priorities as enshrined in Council's Community Strategic Plan.

6 IMPACT ASSESSMENT

The detailed Economic Impact Assessment documented in this report addresses the potential Economic impacts of the construction and operation of the Project.

The impacts of the Project, together with proposed mitigation measures, are considered in detail through the environmental risk assessment process. The details of the risk assessment process undertaken for the Project are outlined in the EES.

Relevant sections of the environmental risk register are provided in this report and the identified impacts of the Mid-West Option is considered in detail in the following sections.

6.1 Existing Barriers to Traffic Movements across the Murray River

6.1.1 Overview

The existing Echuca-Moama Bridge was constructed in 1878. The existing bridge, which is of historical significance and is included on the National Heritage List pursuant to the *Environment Protection and Biodiversity Conservation Act 1999* (Cth), provides a major border crossing over the Murray River which links Victoria and NSW. The closest alternative crossing is located at Barmah, some 50km north-east of Echuca-Moama.

The Echuca-Moama Bridge is located on the Cobb Highway and is situated central to the town centres of both Echuca and Moama. The bridge is vital in terms of supporting the regional centre role of Echuca-Moama and key industries, especially agriculture, trade and tourism.

Three major highways intersect at Echuca-Moama, namely the Northern Highway and the Murray Highway in Victoria, and the Cobb Highway in New South Wales. These highways are significant transport routes, particularly:

- For local trade, noting that Echuca is the main centre serving a catchment of some 41,000 residents which is set to increase 49,000 residents by 2031.
- For tourism, noting that Echuca-Moama receives 1.2 million overnight and daytrip visitors per year, many of whom cross the bridge for accommodation, sight-seeing and other recreational purposes. Population growth and developments, such as the Port of Echuca Revitalisation Project, are anticipated to lead to an increase in annual visitation over the coming years.
- For daily journey-to-work trips, noting the work places for many of the local residents lie on either side of the river and account for at approximately 1.0 million bridge crossings per year, which will increase in the future as the labour force expands.
- Access to markets/ports, noting the strong agricultural, construction, transport and manufacturing sectors in the broader region, with demand likely to increase as industrial precincts expand and new industrial developments occur.

At present VicRoads estimate peak daily traffic volumes on the existing bridge of approximately 22,000 vehicles per day, which includes approximately 1,800 trucks. However, traffic volumes can reach approximately 25,000 vehicles per day in peak seasons or when local events are held. These traffic volumes have reached the bridge's two-way capacity of approximately 20,000-25,000 vehicles per day, noting that bridge traffic experiences significant congestion and delay when traffic volumes exceed around 22,000 vehicles per day, with traffic gridlock occurring across the existing bridge and the approach corridors to it. (source: Department of Environment, Referral of Proposed Action, Echuca-Moama Bridge, April 2013 page 7).

Security of crossing is an important issue for all bridge users recognising the existing bridge is the only crossing available in the immediate area, leaving industry and visitors vulnerable should the bridge be closed for any period of time due to traffic accidents, maintenance requirements or other unforeseen events.

6.1.2 Agriculture

The existing bridge plays a critical role in supporting the Agriculture sector on both sides of the border, through providing access for the movement of crops, livestock and machinery, as well as connecting support services to farmers and other agricultural operators.

Key constraints for the agricultural associated with the existing bridge include:

- Movement of machinery and oversized loads are restricted to off-peak periods during the day and requires the closure of the traffic lane in the opposing direction. In addition the existing bridge has both vertical (5.2m) and horizontal (7.3m) constraints which limits the size of over dimensional loads.
- Many agriculture-related truck movements are forced to travel through Echuca and Moama unnecessarily, when ultimate destinations are not located in these townships. This creates inefficiency of movement and adds to safety and amenity issues in both townships.
- Agricultural operators, like many other businesses in the region, experience transport inefficiencies associated with congestion on the bridge during holiday and events periods.
- Bridge maintenance and traffic incidents affect the bridge from time to time and cause delays and operational inefficiencies, given the lack of viable alternative options.

6.1.3 Industry

Echuca and Moama have significant industry sectors – principally in agriculture, transport and logistics, manufacturing, and construction. The existing bridge plays a vital role in ensuring access for transport operators to key businesses on both sides of the border (such as supermarkets, food processors, manufacturers, wholesalers and, the Echuca & District Livestock Exchange) and beyond to points of distribution and export. The bridge also provides an important link connecting the industrial precincts on each side of the border, recognising the interconnection of many activities in these precincts (for example auto mechanics, storage facilities, construction supplies and, rural supplies).

Constraints associated with the existing bridge for industry include the following:

- The speed limit on the trafficable lane is restricted to 60km/hr.
- The bridge has restrictions on the times of the day that over-dimensional loads (such as silos and large wine and milk tanks) can cross the bridge (ie, not in peak morning, lunch times or afternoon times).
- Restriction on height, weight, speed and width for commercial vehicles.
- Inefficient access to the bridge from Echuca, with commercial vehicles having to pass through a number of roundabouts and traffic lights, creating bottlenecks in this part of the city.
- Safety and amenity issues associated with a high number of truck movements navigating this area of the city.
- Transport inefficiencies associated with congestion on the bridge during holiday and events periods.
- Bridge maintenance and traffic incidents affect the bridge from time to time and cause delays and operational inefficiencies, given the lack of viable alternative options.

6.1.4 Tourism-Dependent Businesses

The existing bridge is of critical importance to tourism-dependent businesses in view of the location of visitor attractions, accommodation and other services on either side of the border. Most tourists to the region are likely to spend time in both Echuca (for the Port of Echuca, shopping, restaurants, Murray River, and so forth) and Moama (wineries, clubs, Murray River, and so forth) and use the bridge to access their destinations. More specifically, a number of tourism-related businesses are located directly on or close to the existing bridge routes (including motels, clubs, hotels, cafes and restaurants) and are dependent to some extent on passing trade to support their businesses.

Constraints associated with the existing bridge for tourism-dependent businesses, which are based on discussions with stakeholders (refer to Appendix A), include the following:

- Traffic congestion during peak holiday periods and major events; for example, during the Southern Ski 80 Weekend it can take up to 45 minutes for visitors (and residents) to cross the bridge.
- Heavy congestion levels during holiday and events act as a disincentive for some people to visit the region, taking their spending to other locations instead.
- The volume of commercial vehicles passing through important tourism areas such as the Port of Echuca is detrimental to this vital tourist precinct.
- Relatively poor amenity (in terms of visual, noise and, pollution impacts) and safety is associated with high vehicle volumes in popular visitor locations.

6.1.5 Retail and Commercial Businesses

The existing bridge plays a vital role in servicing many commercial businesses on either side of the border, especially retailers, cafes, restaurants and other operators who receive daily deliveries from regional and interstate locations. The bridge is also important for many professional services and businesses, such as real estate agents, who hold many open houses in Echuca and Moama and their rural hinterlands, and this is important in regard to the expanding residential and commercial property and land markets either side of the border.

Existing constraints for retail and town centre services include:

- Congestion-related inefficiencies for suppliers, customers and workforce. In peak holiday periods and during the Southern 80 Water Ski event, these delays are considerable, leading to inefficiencies for many businesses on either side of the border.
- Significant truck movements through key retail strips in Echuca and Moama contribute to safety concerns and detract from the amenity of these important shopping areas through traffic-related noise and fumes.

6.2 Benefits and Opportunities

Compared to a 'No Project' Option the following benefits and opportunities have been identified for construction and operational phases of the proposed Project.

6.2.1 Construction Phase

Initial Alignment

Employment opportunities

Significant new employment opportunities will be generated by the Project during the construction of the Initial Alignment, with approximately 4,240 Full Time Equivalent (FTE) jobs supported over the construction period, comprising 1,630 direct FTE jobs and 2,610 indirect (multiplier) FTE jobs, which are detailed in Table 6.1. These estimates are based on preliminary cost estimates provided by VicRoads.

As the construction phase is scheduled for three years, the employment effects will be spread over this period, therefore approximately 1,410 FTE direct and indirect jobs will be supported for each of the three years (although the actual number of jobs supported each year will be related to the intensity of construction works in that year).

Direct jobs relate to employment intrinsically linked to the project such as project management, engineering, site preparation, machine operation and labouring and the like. For a project of this type, it would be expected that a high proportion of direct jobs would be sourced regionally through direct and sub-contracted labour (especially low and semi-skilled requirements); however, specialised skills might be sourced non-regionally (for example through the use of the main contractor's metropolitan staff).

Indirect (or multiplier) employment relates to the supply chain effect which includes employment supported in the wider economy by businesses as demand for their products and

services increase through the requirements of the Project, for example manufacturers, transporters, and financial services. These jobs might be supported at a regional, metropolitan or interstate level, and in some cases overseas (such as imported specialised parts or equipment).

As noted earlier (refer to Table 3.9), approximately 3,000 workers in the Echuca-Moama are involved in construction-related activities (technicians and trades, machinery operators and drivers, and labourers) representing 35% of all occupations and highlighting the strong construction-base which exists in the region from which project labour can be sourced. Additionally, Echuca-Moama is readily accessible to many towns and regional centres in surrounding municipalities with large labour forces within commuting distance of the Project site.

A project of this size offers opportunities for training and upskilling of the local workforce which will benefit individuals and the Echuca-Moama economy in the future. These opportunities might include the main contractor taking on local apprentices for the duration of the project.

A large number of non-local workers (and possibly their families) will relocate to the region for periods of time during the Project, and these are likely to be individuals with professional and specialist skills. It is not uncommon for projects of this nature to facilitate the permanent relocation of some of these workers and their families post-project having experienced the benefits the region has to offer over a sustained period of time. Permanent resettlement of workers and families will benefit Echuca-Moama's economy in terms of an influx of new skills and incomes to the region, as well as supporting population growth.

Discussions with Campaspe and Murray shire councils indicate no major infrastructure projects are planned in the region to coincide with the proposed Echuca Moama Bridge project (assuming a construction starting date in the next 2-5 years), with projects such as the Echuca Hospital redevelopment and the Northern Victoria Irrigation Modernisation project scheduled for completion in the next two years. While the completion of these projects will free up local construction workers, it will also create the need to secure new regional infrastructure projects to create ongoing employment opportunities for this important sector. In this regard the Echuca-Moama Bridge project would represent a timely investment project for the region.

Table 6.1: Initial Alignment – Construction Phase, Estimated Employment Impacts

	FTE No.	FTE per Year (Ave.)
Direct Jobs	1,630	540
Indirect Jobs	2,610	870
Total Jobs	4,240	1,410

Source: ABS Input-Output tables – Employment Multipliers 1996-97; ABS Average Weekly Earnings Australia, May 2014

Note: Figures rounded

Business opportunities

For a project of this scale it is likely a major or specialist contractor would be engaged through a competitive tender process. For example, the Robinvale-Euston Bridge Project was

contracted to Boulderstone Hornibrook, the Port of Echuca Revitalisation project was contracted to specialist wharf restorers GPM Constructions (NSW) and the Discovery Centre was contracted to Melbourne-based Kane Constructions, while the current Echuca Hospital redevelopment has been contracted to Hansen Yuncken.

However, many project components are likely to be sub-contracted at a local/regional level as this approach generally leads to cost efficiencies for the main contractor (for example, compared to importing a workforce from other areas). Importantly, the business, industry and labour force structure of the Echuca-Moama region has a strong construction-related base.

As shown in Section 3.2, approximately one in five of Echuca-Moama's businesses are in the construction sector (400 businesses), approximately one in ten employed residents work directly in construction sector (780 workers), and over one in three resident workers (2,990 workers) are occupied in construction-related activities (trades, machinery operators and labourers).

Specific business opportunities could arise for operators such as Mawsons Concrete and Quarries, recognising the significant amount of quarry material and concrete required for the project. In our experience, Project contractors will generally seek to source these resources within the immediate area to minimise transportation costs. In this regard it is noted that Mawsons has many sites located within an hour or so of the bridge construction site, including operations at Barham, Cohuna, Deniliquin, Echuca, Rochester, Shepparton and Tongala.

Other locally-based businesses with the capacity to be involved in a project of this scale include civil construction firms such as the Northern Construction Group and Planwright, excavating & earth moving contractors such as G & K Kennaugh, transportation operators such as Neil's Transport, and equipment hirers such as Echuca Hire Pty Ltd.

Stakeholders believe that it would be beneficial for the main contractor to hold a project briefing in Echuca-Moama for all interested parties prior to tendering of sub-contracts. This will enable local businesses to better understand specific project opportunities, resources needed, the timing of required services, contract details and the specifics of the tender process.

Campaspe Shire Council, through the Shire's Community and Economic Development Department, has expressed a desire to assist local businesses in securing project contracts, which could include a role in advising bid consortia or by providing support to individual businesses during the tendering process.

Other options to assist with maximising local participation include the use of an organisation such as the Industry Capability Network (ICN) which has a long-standing track record in bringing together contractors and suppliers for major infrastructure projects. For example, the ICN is currently facilitating the Expressions of Interest process for work packages associated with the Bendigo Hospital Development, and could potentially play a similar role with regard to the Echuca-Moama Bridge Project.

In terms of leveraging local business input and employment, the tender documentation for the main project contract might include specific weighting relating to the amount of local content the proponent identifies in the bid, subject to consistency with existing procurement

guidelines. This is not dissimilar to many Victorian local government tenders that provide a weighting linked to the value or proportion of local service identified in the tender response.

Wage Spending stimulus

New spending will be generated in the Echuca-Moama economy through the temporary resettlement of non-regional construction workers during the project period.

For the purposes of this analysis it is assumed that approximately 25% of project staff requirements will be sourced from non-regional workers (such as metropolitan Melbourne, or interstate), while the majority of the workforce will be sourced from within the broader region (ie workers who can commute daily to and from the site). The broader region includes potential project workers from locations outside Echuca-Moama, including major regional centres such as Bendigo, Deniliquin and Shepparton.

Based on employment estimates shown in Table 6.1, 25% of the Project workforce represents approximately 405 non-regional FTE workers over the lifetime of the project, or an average of 135 FTE non-local workers for each year of the project.

This level of employment would equate to \$10.1 million in wages per annum based on the average full-time construction wage (ordinary earnings) of approximately \$75,000 – figure rounded (source: ABS Average Weekly Earnings 6302.0, May 2014).

A considerable portion of these wages would be spent in the Echuca-Moama area. An estimated \$6.1 million per annum (2014 dollars) would likely be directed to local and regional businesses and service providers during the construction period. This estimate is based on reference to the ABS Household Expenditure Survey (ABS, 2011) which indicates that approximately 75% of post-tax wages are likely to be spent by workers in the regional economy in view of the wide range of goods and services available, especially in Echuca. Over the three-year project period, the spending stimulus would be \$18.3 million (in constant 2014 dollars).

This spending would be likely to include the following:

- Housing expenditure, including spending on accommodation at hotels, motels, caravan parks and private rental dwellings.
- Retail expenditure, including spending on supermarket items, clothing, books, homewares and the like.
- Recreation spending associated with day trips and excursions, gaming (such as lottery, and sports betting), purchases in pubs and clubs (although noting that expenditures at restaurants is included in the retail category).
- Personal, medical and other services, such as local prescriptions and GP fees, household cleaning services, fuel, vehicle maintenance and so on.

This level of personal spending would support approximately 30 FTE jobs in the services sector for each year of the Project, (1 job allocated for every \$200,000 of spending), including jobs in Echuca-Moama associated with retail, accommodation, financial and rental service, trade

supplies, cafes and restaurants etc. These jobs are factored in to the 'indirect employment' estimates outlined in Table 6.1 above.

Ultimate Duplication

Employment

Based on preliminary construction cost information provided by VicRoads, approximately 2,940 FTE jobs will be supported over the construction period comprising 1,130 direct FTE jobs and 1,810 indirect (multiplier) FTE jobs. It is assumed the Ultimate Duplication would be undertaken over a two-year period, with 1,470 FTE direct and indirect jobs supported in each year.

Table 6.2: Ultimate Duplication – Construction Phase, Estimated Employment Impacts

	FTE No.	FTE per Year (Ave.)
Direct Jobs	1,130	565
Indirect Jobs	1,810	905
Total Jobs	2,940	1,470

Source: ABS Input-Output tables – Employment Multipliers 1996-97; ABS Average Weekly Earnings Australia, May 2014

Note: Figures rounded

Business opportunities

Business opportunities would be expected to be similar to those outlined for the Initial Alignment (for example services associated with the provision of quarry material, concrete, civil engineering, transportation and equipment hire). However, as the Ultimate Duplication could be decades away, actual opportunities arising will depend on industry, business, labour force and occupational structures in places at that time and any major competing projects occurring concurrently with the duplication.

Wage Spending stimulus

Wage spending stimulus impacts would be expected to be similar to those identified for the Initial Alignment (for example retail, accommodation, financial and rental service, trade supplies, cafes and restaurants). However, the Ultimate duplication could be decades away, actual opportunities arising will depend on labour market conditions at that time, including the likely need to source a share of workers from outside the region.

6.2.2 Operational Phase

Initial Alignment

Agriculture

The second bridge crossing provides many positives for the agriculture sector, mainly due to providing choice for transporters of livestock and produce – operators can bypass the Echuca and Moama town centres if necessary, but can also use the original bridge for convenience (for

example accessing Saleyards, or use by major food processors such as Kagome). The second bridge would allow transporters of oversized loads 24-hour a day access, and also reduces risk for the agricultural sector by providing an alternative option should the existing bridge be out of action for any time. Additionally, the second crossing would provide additional clearance for over dimensional loads which is limited by the overhead structure of the existing bridge.

In terms of timing, transport stakeholders indicate some urgency exists to provide a second bridge, as the use of B-double vehicles to transport livestock has increased significantly over recent years, as has the use of High Productivity Freight Vehicles (HPFVs). The second bridge option will therefore assist in accommodating larger agricultural trucks and reduce pressure on existing bridge/link roads through town.

While some agricultural land is affected by the proposed route alignment, the Department of Primary Industries indicates this land has little productive value and therefore the loss of this land would not impact adversely on the regional agricultural sector because the affected land lies on a floodplain and does not currently accommodate any agricultural businesses. The land is of little use for crops or livestock and can therefore be considered to be of low value from an agricultural perspective.

Industry

In general, industry stakeholders report that they expect benefits for business from the second bridge for the following reasons:

- Reduced travel costs (in time and fuel) for some business and industrial operators, principally those seeking to by-pass Echuca and Moama.
- Reduced risk to industry by having a viable alternative cross-border route should the existing bridge be temporarily closed for maintenance or due to a traffic-related incident.
- Removal of restrictions on the movement and increased size of over-dimensional loads.
- Provision of High Mass Limit (HML) compliant bridge.

In view of the increased freight task, transport operators are seeking greater flexibility for the efficient movement of freight including the use of HPFVs and vehicles with HML.

However, transport operators note that individual drivers will seek the quickest route to their destination, and in many cases the existing bridge will remain the most efficient choice, particularly when servicing operators in Echuca's industrial precincts. For example, the existing bridge is likely to remain a more cost-effective option for the transportation of significant quantities of tomatoes from NSW to Kagome's processing plant in Cornelia Creek Road. It is also important, therefore, that the opening of the second bridge does not lead to any restrictions on existing heavy vehicle movements on the existing bridge.

In summary, the flexibility of having two bridge-crossing options will undoubtedly be of assistance to industry more generally.

Tourism-Dependent Business

The provision of a second bridge option is likely to lead to a reduction in heavy traffic (trucks) in areas most frequented by visitors, and this would be advantageous to tourism operators in terms of improved amenity, reduced noise and pollution, and improved safety.

More generally, efficient cross-border traffic movement during peak holiday periods will be of significant benefit to the tourism sector, with the second bridge assisting in facilitating quicker movement for tourists to and from attractions, accommodation and so forth.

In terms of the Historic Port of Echuca, a 41% reduction in traffic, including large trucks, through this area will improve visitor safety and amenity. Moreover, the location of the proposed bridge structure would not be visible from the Historic Port area and this would also be a positive outcome for business and riverboat operators in this area.

It is predicted that the Project including the installation of traffic lights at the Perricoota / Cobb Highway intersection will significantly improve the flow of visitor traffic for major events, such as the annual Southern 80 and Deniliquin Ute Muster events.

A specific tourism opportunity directly associated with the Echuca-Moama Bridge Project is the proposed Bridge Arts Project (BAP). The BAP is being planned by under the guidance of a Steering Committee representing local business identities, artists, educators and representatives of Yorta Yorta Nation people.

The BAP aims to be recognised nationally and internationally as an iconic centre for post-modern art and education on the history and culture of indigenous and post-settlement Australians. Based near bushland close to the Murray River on land traditionally inhabited by Yorta Yorta Nation people, the Project proposes to utilise the sides of the new Echuca-Moama Bridge causeway, bridge supports and surrounding approaches to display art, while a sculpture space, including walking and cycling tracks, would be developed on 14ha of land adjoining the bridge on the NSW side of the river. The Project Steering Committee has expressed in principle support for the Bridge Arts Project vision, and acknowledged that there may be opportunities for collaboration between road authorities and the BAP regarding design themes.

Other proposed components include an interpretive centre, contemporary gallery, educational/conference and a fauna park which will be privately developed over a 5-year period (post-bridge completion).

It is anticipated the BAP would become a major tourism attraction for the region, bringing new visitors to Echuca-Moama, including interstate and international visitors. Importantly, the BAP Steering Committee emphasise the design of the bridge (and its structures) would preferably accommodate BAP requirements and consultation with the Steering Committee in the compilation of the design documentation would contribute to this positive outcome.

Retail and Commercial Businesses

Discussions with the Echuca-Moama Business & Traders Association and freight operators indicate the second bridge would be very positive for retailers and suppliers as it would create more efficient movement and flexibility of choice for operators servicing major business such as supermarkets on either side of the border. While some retailers and other businesses most

closely located to the existing bridge might experience a very small drop in trade, the existing bridge access will remain open and will continue to be used by residents to access these businesses. Additionally, the vast majority of visitors to Echuca and Moama are 'destination focused' and very few would be likely to bypass the main shopping areas of either town.

The second bridge crossing will have a significant positive impact regarding diverting traffic, especially heavy traffic, from Echuca and Moama town centres. This is principally due to the fact that the new bridge provides an alternative option for operators who are not required to enter Echuca and/or Moama, but who are currently forced to do so due to the location of the existing bridge.

Reduced congestion in Echuca and Moama will also assist in making the central business areas of these towns more pleasant as places to visit, and this is likely to increase investment opportunities in each of the shopping strips.

Traffic modelling included in the Traffic Impact Assessment Report (Jacobs, 2015) shows the following impacts on traffic flows for key traffic routes located close to the bridge. Compared to current volumes, Jacobs predict the second crossing will by year 2044 have the effect of:

- A reduction of approximately 40% of traffic that would have otherwise used the bridge if the second river crossing were not available.
- Reductions in typical weekday daily traffic volumes (including trucks) by up to 41% on the existing bridge and the north-south route along High Street and Meninya Street.
- An increase in traffic volumes in Warren Street by approximately 57% immediately east of the Murray Valley Highway (note, very little commercial activity is located on Warren Street).

Campaspe Shire Council believe reduced heavy traffic flows through the Echuca CBD will enable improved connectivity to be provided between the Historic Port of Echuca and the main shopping and dining areas, while new opportunities are likely to emerge at the northern end of High Street due to improved amenity and accessibility.

While Moama is more limited in terms of commercial expansion, improved amenity will assist in further developing opportunities, such as outdoor dining and other retail and commercial possibilities along Meninya Street, which is consistent with the objectives of the Murray LEP.

Murray Shire Council reports continuing shop vacancies in Meninya Street and a history of short-lived business enterprises over recent years attributed in part to difficulty associated with accessing and exiting business premises due to high volumes of traffic which adversely affect trading levels.

Certainty regarding the development of the new bridge crossing will enable Murray Shire Council to masterplan Moama's main commercial area, including providing improved access to businesses, more efficient car parking, higher quality landscaping and the like, which will enhance the business environment and support investment opportunities. Property stakeholders note Meninya Street has a number of undeveloped/underdeveloped commercial lots, the investment potential of which will be enhanced through reduced heavy traffic flows and improvements to the commercial area facilitated through the Echuca-Moama Bridge Project.

Ultimate Duplication

The types of benefits identified for the initial alignment (efficiency of movement of goods, services, customers and visitors) would be expected to continue through the duplication of the bridge route which would increase overall vehicle capacity.

However, as road duplication could be decades away, actual opportunities likely to arise will depend on the business environment and factors such as population and visitor numbers at that time.

6.3 Adverse Impacts

Compared to a 'No Project' Option the following adverse impacts have been identified for construction and operational phases of the Project.

6.3.1 Construction Phase

Initial Alignment

Business disruption

While most of the construction works will occur in locations which have little adverse impact on businesses (non-productive agricultural land), a number of businesses, especially those located towards the northern part of Meninya Street in Moama, have expressed concerns regarding potential disruption to their operations during the construction phase of the project. This factor is especially relevant to businesses located in and around the Cobb Highway/Regent Street and Cobb Highway/Perricoota Road junctions (including the Moama Marketplace) where most of the construction works will occur. Specific factors include limited or restricted access to business premises (customers and suppliers) and negative impacts on trade associated with large-scale works occurring in the immediate area (for example noise, dust, congestion, safety).

It is considered that on the Victorian side of the border the Echuca Holiday Park, which is located in Victoria Park, is one business that will be adversely affected by the construction works. This is due to the facility's close proximity to the bridge structure. Adverse impacts for this business include increased noise levels and reduction in visual amenity as the structure is being built. These factors could lead to a loss of patronage (and associated revenues) to competing caravan parks on either side of the border. However, the Echuca Holiday Park might be able to capture a share of visiting construction worker market during the construction phase of the Project due to its proximity to the Project site and the wide range of accommodation (including cabins and powered sites), recreational and catering facilities offered.

More generally, the movement of construction-related vehicles servicing the Project site could create additional traffic congestion, including across the existing bridge. If this was to occur, negative impacts are likely for business operators, especially during peak seasons (passengers missing paddlesteamer cruises, increased travel time for CBD suppliers and so forth).

River-based activities

The Port of Echuca and the Murray River are the main attractions for most visitors to the Echuca-Moama region. The major river-based businesses are Echuca Paddlesteamers and Murray River Paddlersteamers.

Campaspe Shire Council own and operate Echuca Paddlesteamers which comprise two authentic, fully operational paddlesteamers – the PS Pevensey and PS Alexander Arbuthnot. The steamers share the load of passengers for cruises departing daily at Echuca Wharf. A range of services are available, including a one-hour paddlesteamer cruise and the Wharf to Winery package, as well as private functions.

Murray River Paddlesteamers are located in the historic Port of Echuca precinct and operate a fleet of historic paddleboats from Echuca-Moama on the banks of the Murray River. The fleet – which includes PS Emmylou, PS Canberra and Pride of the Murray – offer a wide range of services which include short day-cruises, lunch or dinner packages, overnight cruises, and functions.

Up to 50 trips (both ways) occur daily along the Murray River past the proposed construction point at the peak of the holiday season, highlighting the popularity of the paddlesteamer experience to visitors.

Discussions with both operators highlight the following concerns relating to the construction phase of the project:

- The river area northward of the proposed bridge structure is critical to both operators in terms of popularity, high-yielding visitors, and weddings and functions. This includes destinations such as Morrisons Winery (with many paddlesteamer patrons stopping for lunch and wine tasting), Reflection Bend and the Campaspe River. Any construction activity which disrupts access to these destinations would be detrimental to business. Murray River Paddlesteamers run night cruises in this area, therefore night works would need to be scheduled after 10pm to avoid potential disruption.
- Specifically, any closure of the river to accommodate construction works should be minimised as this could have a significant negative impact on revenues, recognising these works will coincide with the peak summer season due to river flow requirements.
- Paddlesteamer operators would prefer sufficient access at all times to pass safely around any construction activity occurring and to avoid disruptions to timetables (or charter trips) which would result in economic losses.
- Requirements of other river-based businesses (such as houseboat operators, fishing tours, watersports operators and vessel hirers) also need to be considered in terms of minimising delays and maintaining safe access to the Murray River during the bridge crossing stage of construction works.

Events disruption

The Southern 80 Water Ski Race, held in Echuca each year on the second Sunday in February, is the largest event of this type in the world, attracting over 400 entries from Australia and internationally. The race takes place on the Murray River between Torrumbarry and Echuca, and involves a two-up water ski race.

The 3-day event attracts approximately 90,000 visitors and competitors and is the most important tourism event for the region. The race is organised by the Moama Water Sports Club and the finish line is located at the Victoria Park Boat Ramp in Echuca.

Research undertaken by Campaspe Shire Council shows the event generates approximately \$10 million in economic benefit to the regional economy.

The Southern 80 will celebrate its 50th anniversary in 2015. The race is conducted by the Moama Water Sports Club each February on the Murray River, with the start/finish point located at the boat ramp in Victoria Park.

The area around the Boat Ramp, which includes the car park, is used to host events and to provide food, drink, merchandise and other services during the race weekend. Access to the Boat Ramp and this broader area is therefore critical to the successful staging of the event, with a two-week period required by the event organisers to set up and deconstruct the site.

Discussions with Moama Water Sports Club suggest that if this two-week period can be quarantined as construction-free, then there would be no major concerns or likely impacts on the race. VicRoads has discussed the project with the Moama Water Sports Club and has given an undertaking to incorporate provisions within the Project contract documentation that construction would not prevent the race occurring or interfere with its staging including access to the Victoria Park boat ramp. Further, the Club asserts that construction of the bridge structure in this location should only occur during one year of the three-year construction phase, and with long-term certainty regarding race dates (many years into the future), and so scheduling of construction works around the event for a single year is not anticipated to be problematic.

Labour supply

The project will require the supply of approximately 540 FTE positions per year (for each of the three years of construction), of which approximately 405 FTE positions (or 75% of labour force requirement) are assumed to be sourced from within the regional economy. The actual number of positions will be higher than 405 when part-time work is factored in and the fact labour requirements are unlikely to be evenly spread over the three-years as a project peak is likely to arise at the mid-point of the construction works.

Using the 405 FTE figure, this represent 14% of Echuca-Moama workers who are occupied in construction-related activities. Other potential project workers are located in other townships in Campaspe and Murray Shires, while some 540 job seekers are currently unemployed in the two municipalities.

Additionally, a significant labour force exists within commuting distance of the Project site. For example, ABS Census data for 2011 shows the municipalities of Greater Bendigo and Greater

Shepparton contain approximately 24,000 workers who are occupied in construction-related activities, while the Deniliquin Region (SA2) has approximately 900 construction-related workers.

As noted earlier, two major infrastructure projects (Bendigo Hospital Development and the Northern Victoria Irrigation Modernisation) will be drawing to completion around the anticipated start of the construction of the Echuca-Moama Bridge Project freeing up many regionally-based construction workers.

In view of the above factors, Echuca-Moama and the broader region appears to have sufficient relevant labour force capacity to cater for the Project without having detrimental flow-on effects to the economy.

Accommodation supply

Echuca-Moama has a significant and varied commercial accommodation sector catering for all types of travellers, with stock including caravan and holiday parks, hostels and backpackers, houseboats, hotels, motels, resorts, serviced apartments, bed and breakfast and private holiday lettings. Rated accommodations ranges from 3.0 star to 4.5 star, highlighting the capability of the region to meet a wide range of requirements.

The analysis included in this report assumes approximately 135 rooms/cabins/sites would be required to support non-regional construction workers temporarily relocating to the region to work on the Project (this allows for a single occupant per room/cabin/site).

Available information sourced from the ABS and RACV shows Echuca-Moama has a commercial accommodation capacity of 1,460 rooms/cabins/powered sites and 4,200 bed spaces. This data, which is outlined in Table 6.4, does not include unpowered sites (which are considered unsuitable for Project workers) or the many bed and breakfast and other private holiday lettings available in the region. Assuming all 135 rooms/cabins/powered sites were sourced from the commercial accommodation stock of 1,460 rooms/cabins/powered sites (which is an unlikely outcome), this would represent approximately 9% of existing total stock.

ABS Tourism Accommodation data for 2013 also shows average peak occupancy rates (January) are around 60% for hotels, motels and serviced apartments and 85% for cabins/powered sites; however, these occupancy rates decline in the low season (June) to approximately 45% for hotels, motels and serviced apartments and 70% for cabins/serviced apartments.

The data above indicates sufficient commercial accommodation is available to cater for a relatively small number of construction workers temporarily relocating to Echuca-Moama; however, during peak holiday periods supply of caravan park accommodation appears to be relatively scarce, and therefore some consideration is required as to how to manage demand from both tourists and construction workers over these periods.

Table 6.4: Commercial Tourism Accommodation – Echuca Moama

	No. Establishments	No. Rooms/cabins /powered sites	No. Bed Spaces
Hotels, Motels and Serviced Apartments			
Echuca	14	430	1,140
Moama	11	350	1,010
<i>Echuca-Moama</i>	25	780	2,150
Caravan and Holiday Parks			
Echuca	4	380	1,140
Moama	5	300	900
<i>Echuca-Moama</i>	9	680	2,040
Total Accommodation			
Echuca	18	810	2280
Moama	16	650	1910
<i>Echuca-Moama</i>	34	1,460	4,190

Source: ABS Tourist Accommodation, Small Area Data June Quarter 2013; RACV Tourist Park Guide 2010

Note: Figures rounded

Discussions with real estate agents and other stakeholders highlight the limited supply of housing rentals available within Echuca and Moama, with demand for housing high and supply tight leading to extremely low vacancy rates. For example, information sourced from Real Estate Investor (www.realestateinvestar.com.au) shows that of March 2014, Echuca's vacancy rate was less than 1%; while a review of all available listings in September 2014 shows only 60 properties are currently on the market in the broader Echuca-Moama region. In view of this situation and recognising ongoing population and labour force growth, it would be advisable to avoid the housing rental market when considering accommodation options for construction workers moving to the region as this would place further pressure on an already tight housing market (assuming similar conditions are in place at the time of bridge construction). Demand from construction workers may also lead to rental inflation as landlords seek to 'cash in' on potentially higher rental returns by replacing existing tenants with higher-paying project workers during the construction phase of the project.

Consideration of measures to protect housing supply should be considered including obligations placed on the main contractor for the development of a project housing strategy (the *Victorian Desalination Project Accord* 2009, is one such example of what such a strategy might involve).

Ultimate Duplication

As the Ultimate Duplication could be decades away, it is not possible to assess potential construction impacts. However, the above issues relating to availability of suitable labour, providing accommodation for construction workers, and issues with regard to business and events disruption during the works would likely need addressing.

6.3.2 Operational Phase

Initial Alignment

Loss of Passing Trade

Some businesses located in Moama, especially those operating in Meninya Street, have expressed concern that trading levels may decline due to the opening of the second bridge; however, these concerns are mainly based on the premise that new restrictions might be placed on vehicle traffic accessing the existing bridge. Some note that any restrictions of heavy vehicles travelling via the existing route would reduce custom and also adversely affect supplies. Other businesses feel the long-term trading benefits of the second bridge would outweigh any small trading losses that may occur during the initial phase on operation of the new bridge.

Discussions with VicRoads confirm there are no plans to place any new restrictions on vehicles using the existing bridge (although existing restrictions for oversized and HML vehicles will remain), and therefore users will have the choice to travel through Moama and Echuca town centres as per the current situation or avoid these routes by using the new bridge crossing. Traders suggest that allowing existing traffic flows across the bridge (including heavy vehicles that may need or prefer to use this route) would minimise adverse business impacts.

As noted earlier, factors such as increased efficiency of movement for residents and visitors and opportunities for both Councils to implement access and amenity improvements in key shopping and dining strips in Echuca and Moama are likely to enhance the operating environment for businesses.

Echuca Holiday Park, Echuca

It is considered that the operation of the second Echuca-Moama Bridge may adversely impact on the Echuca Holiday Park through visual and noise impacts. While these impacts alone might not threaten the business viability of the facility, the regional accommodation market is highly competitive, with many alternative options available on either side of the border for those seeking caravan park accommodation. It is possible therefore, that visual and noise impacts may lead to some economic loss for the Echuca Holiday Park as some visitors are likely to be deterred from using the facility in favour of other options which provide a higher level of amenity.

Madison Spa Resort, Moama

Madison Spa Resort is a 40-room, 4.5 star luxury facility located on Meninya Street, Moama. The resort is set on 16ha of bushland and includes a full range of facilities, including licenced restaurant, day spa, pool, steam room, massage and beauty therapists.

It is considered that the proposed second bridge is likely to adversely impact on the resort, mainly through noise impacts, especially toward the rear of the property, through the introduction of a new road reserve. This introduction of a road in this location has the potential to reduce the attractiveness of the facility for visitors seeking a natural environmental experience. However, discussions with the resort owner indicated these impacts alone are unlikely to undermine the business viability of the facility, recognising potential benefits arising from the bridge such as providing easy access to the facility via both the existing bridge and the new bridge.

River Country Inn, Moama

The River Country Inn Motel is a 3.5 star facility located on Meninya Street in Moama. The motel is located on 1.4ha of land and the facilities include 27 rooms, solar-heated pool, and landscaped courtyards. Patronage is focused on the older market segment, including retirees, due to the peaceful surrounds and easy accessibility provided through ground floor units and flat land.

The facility is located opposite the Cobb Highway/Perricoota Road intersection and the new bridge approach on the NSW side of the border (refer to Figure 3.3). The business changed operators in late 2012 and discussions with the new operators highlight significant concerns relating to the impact the new bridge route will have on the viability of the business.

These concerns include:

- Removal of existing right-in and right-out access to the motel, which removes direct access for northbound customers arriving from Victoria, including patrons otherwise captured through passing trade.
- Installation of two sets of traffic lights at the junctions of the Cobb Highway / Perricoota Road and the Cobb Highway / Regent Street, which will lead to a significant increase in noise levels through constant heavy vehicle braking at these traffic lights.
- Reopening of Francis Street as an alternative entrance to the Motel does not provide a viable solution as significant construction works would need to be undertaken to provide appropriate vehicle access (including coach access). This would also involve removal and reconstruction of all fencing and loss of property to create a sufficiently-sized access road for patron vehicles and tour buses. Feedback from the new operator indicates the landowner is unwilling to agree or provide financial support for these changes.

Some economic losses (ie reduced occupancy rates and associated revenues) may occur due to a combination of factors such as reduced passing trade (much of which would travel directly on to competing establishments on Perricoota Road), and traffic noise impacts (especially associated with rooms located at the front of the motel) and which would act as a deterrent to patrons to stay at the motel – given the many alternative quieter options available nearby in this highly competitive market. This includes establishments located at the southern end of Meninya Street which will not face similar impacts.

Moama Marketplace, Moama

Discussions with the property owner and centre manager indicate the while the operation of the second bridge will generate positive benefits for Echuca and Moama communities, specific concerns have been expressed regarding:

- Impacts on future development options in view of land likely to be acquired for the project.
- Impacts of changes or restrictions to the existing loading access for large vehicles (such as the Woolworths delivery vehicles).
- Impacts on existing access points to the centre for customers.

The Project will require the closure of Boundary Road adjacent to the southeast corner of the Woolworths Supermarket. Currently this section of Boundary Road is one way in the westerly direction allowing delivery vehicles and customers to access the marketplace from Meninya Street. VicRoads has undertaken consultation with Woolworths Management regarding the closure of Boundary Road and future provision for Woolworths delivery vehicles. Delivery vehicles would be required to enter the marketplace from Perricoota Road instead of Meninya Street. A large radius turning circle has been incorporated into the concept design on Boundary Road to the west side of the road closure to enable delivery vehicles to turn safely to access delivery docks.

VicRoads advise that any remaining issues regarding access can only be fully addressed at the detailed design stage of the construction process.

Moama Water Sports Club – Southern 80 Water Ski Race, Echuca

Discussions with the event organisers indicate no negative impacts on the Southern 80 Water Ski Race are anticipated once the second bridge is operating as no bridge structures are to be constructed in the water (therefore no obstacles) and bridge height clearances will be sufficient to allow ski race activities to continue unimpeded.

As noted earlier, improved traffic flows and reduced congestion for competitors and visitors will be a major benefit for the event and there is the possibility to use the bridge structure to place temporary GPS timing equipment for the race.

Ultimate Duplication

As the Ultimate Duplication could be decades away, it is not possible to assess potential operational impacts at this time. This recognises the business-specific nature of the impacts identified during the Initial Alignment, with future impacts dependent on the actual businesses operating at the time of road duplication.

6.2.3 Proposed Mitigation Measures

Construction Phase (Initial Alignment)

The following mitigation measures are recommended to reduce or remove potential business impacts during the construction phase of the project:

- Businesses effected by construction activities – Working hours for project construction works to be managed within times specified in VicRoads standard specification to minimise noise, traffic movement and other negative impacts on business operators, especially accommodation providers. These include restrictions on hours of operation, days of operation (weekends, during major events etc) and the types of work that might be permitted at particular times or on specific days. Additionally, a Traffic Management Plan would be prepared to guide construction-vehicle movements in and around the Project site (including across the existing bridge) in the most efficient manner during the construction period.
- River based activities – In consultation with river-based businesses, subject to technical and financial feasibility, minimise the number, extent and duration of river closures during the bridge crossing phase of the construction. Additionally, ensure sufficient and safe access is provided for all river users (especially large paddlesteamers) during the works.
- Southern 80 Event – Subject to technical and financial feasibility, VicRoads could include in the Project construction documentation a suspension of construction works in the vicinity of the Southern 80 event venue over the two-week period required for event set-up, event staging and decommissioning of the event site.
- Construction worker accommodation – Consider including in the project contract a requirement that construction workers be housed in available commercial or private accommodation (where practical), rather than using permanent rental accommodation which is in short supply. Alternatively a Project Accommodation Strategy might be developed with input from the main contractor, Local and State government representatives, accommodation providers and property stakeholders.
- VicRoads encourages the contractor to meet with the local Council's to discuss suitable accommodation options for project workers.

Operational Phase (Initial Alignment)

The following mitigation measures are recommended to reduce or remove potential adverse business impacts during the operational phase of the project:

- Echuca Holiday Park – Subject to advice from an acoustic expert to the extent practicable, road agencies to consider sound mitigation (if warranted and subject to advice from an acoustic expert) to lessen the impact of the bridge structure and its operations on the Holiday Park.
- Moama Marketplace – To the extent practicable, road agencies to hold ongoing discussions with the property owner and centre manager, especially during the detailed design stage, to mitigate concerns relating to site access (deliveries and customer) and land acquisition.
- Madison Spa Resort, Moama – Subject to acoustic advice and to the extent possible, road agencies to consider providing sound mitigation (if warranted and subject to advice from an acoustic expert), to lessen the impact of the bridge structure and its operations on the facility.

- River Country In, Moama – Roads and Maritime Services to consider the feasibility of allowing U-turns at the northbound right turn lane on the Cobb Highway at the Perricoota Road traffic signals to enable direct access to the motel, subject to road safety audit. Subject to acoustic advice and to the extent possible, road agencies to consider noise mitigation (if warranted and subject to advice from an acoustic expert) and reasonable assistance with works required to create an alternative entrance to the motel in Francis Street, including relocation of signage.

7 CONCLUSION

This Economic Impact Assessment assesses whether the Echuca-Moama Bridge Project provides road infrastructure that fosters a viable level of economic performance for the local and regional economy of Echuca-Moama. The key impacts and associated mitigation measures are as follows:

Construction Phase

Compared to a 'No Project' Option, the following benefits and opportunities have been identified:

- Employment generation of 4,240 Full Time Equivalent (FTE) direct and indirect jobs supported over a three-year construction period (or approximately 1,410 FTE jobs for each year of the Project).
- Opportunities for training and upskilling of the local workforce, including new apprenticeships created to support the Project.
- Business opportunities for many regional operators such as those providing services associated with the provision of quarry material, concrete, civil engineering, transportation and equipment hire.
- Wage spending stimulus of approximately \$18 million over three-years from construction workers relocating to Echuca-Moama, with this spending benefiting a range of business sectors in both townships.
- Business and employment opportunities could be supported by the following approaches:
 - Include local content weighting in tender documentation for main contract(s), subject to consistency with existing procurement guidelines
 - Require successful main contractor to brief interested parties prior to the tendering of sub-contracts (in Echuca-Moama) to enable local businesses to better understand project opportunities/works packages, works timing, specifics of the tender process etc
 - Use of an organisation such as the Industry Capability Network to match works packages with local suppliers
 - Participation of Campaspe and Murray shires to provide advice and assistance to local businesses with the tendering process.

Compared to a 'No Project' Option, the following impacts have been identified:

- Potential disruption to some business located towards the northern end of Meninya Street during construction activities due to restricted access to business premises and noise, dust, congestion, safety impacts associated with the works.

- Potential negative impacts on Echuca Holiday Park due to the facility's close proximity to the bridge structure (such as noise levels, reduction in visual amenity) which might lead to a loss of patronage.
- Potential disruption to river-based businesses (such as paddlesteamers, houseboats etc) during the bridge crossing phase of the construction, as well as to the annual Southern Ski 80 event.
- Sufficient labour is available in the region to service the Project, supported by additional labour options in regional centres within commuting distance, such as Bendigo and Shepparton. However, some specialist labour (for example 135 FTE workers) will need to be imported (such as from metropolitan Melbourne or interstate) in view of the scale and complexity of the Project.
- Echuca-Moama has a significant stock of hotel, motel, serviced apartments, cabins and powered sites (1,500 rooms/cabins/sites and over 4,000 bed spaces) and this supply should be sufficient to accommodate imported workers without negatively affecting the tourist market. Little capacity exists in the local rental housing market and it would be preferable to avoid this sector to ensure no negative impacts arise (such as housing displacement or, rental inflation).

To remove or minimise negative impacts, the following Mitigation Measures could be considered:

- Businesses effected by construction activities – Working hours for Project construction works to be managed within times specified in VicRoads standard specification to minimise noise, traffic movement and other negative impacts on business operators, especially accommodation providers. These include restrictions on hours of operation, days of operation (weekends, during major events etc) and the types of work that might be permitted at particular times or on specific days. Additionally, a traffic management plan would be prepared to guide construction-vehicle movements in and around the Project site (including across the existing bridge) in the most efficient manner during the construction period.
- River based activities – In consultation with river-based businesses, minimise the number, extent and duration of river closures during the bridge crossing phase of the construction. Additionally, ensure sufficient and safe access is provided for all river users (especially large paddlesteamers) during the works.
- Southern 80 Event – Subject to technical and financial feasibility, VicRoads would include in the Project documentation a suspension of construction works in the vicinity of the Southern 80 event venue over the two-week period required for event set-up, event staging and decommissioning of the event site.
- Construction worker accommodation – Consider including in the Project documentation a requirement that construction workers be housed in available commercial or private accommodation (where practical), rather than using permanent rental accommodation which is in short supply. Alternatively a project accommodation strategy might be developed with input from the main contractor, Local and State government representatives, accommodation providers and property stakeholders.

- VicRoads encourages the contractor to meet with the local Council's to discuss suitable accommodation options for project workers.

Operational Phase

Compared to a 'No Project' Option the following benefits and opportunities have been identified:

- Significantly improved access and efficiency of movement for heavy vehicles, benefiting industry and agricultural operators.
- Improved efficiency of movement for visitors which will benefit the tourism sector, including improved access for major events (such as Southern Ski 80 race). The Project may also facilitate the development of the proposed Bridge Arts Project (BAP).
- Improved trading conditions and opportunities for CBD operators in Echuca and Moama due to improved amenity and safety through a reduction of 40% in vehicle traffic (including many heavy vehicles), facilitating opportunities to better plan and revitalise shopping and dining areas close to the existing bridge.
- Business and employment opportunities could be supported by the following approaches:
 - Input from BAP stakeholders in bridge design tender documentation to the extent technically and financially feasible; and
 - Involvement of local businesses and business groups in the revitalisation of key shopping and dining areas.
- Potential for permanent relocation of non-local project workers and their families post-Project, bringing additional skills and incomes to the region and supporting population growth.

Compared to a 'No Project' Option the following adverse impacts have been identified:

- Potential for some loss of passing trade for Moama businesses located close to the existing bridge.
- Potential negative impacts on a small number of businesses located close to the bridge route, including Echuca Caravan Park (noise and visual), Madison Spa Resort (noise and visual), and River Country Motel (reduced access, noise and visual).

To remove or minimise negative impacts, the following Mitigation Measures could be considered:

- Echuca Holiday Park – Subject to acoustic advice and to the extent practicable, road agencies to consider sound mitigation (if warranted) to lessen the impact of the bridge structure and its operations on the Holiday Park.
- Moama Marketplace – Road agencies to hold ongoing discussions with property owner and centre manager, especially during the detailed design stage, to mitigate concerns relating to site access (deliveries and customer) and land acquisition.

- Madison Spa Resort, Moama – Subject to acoustic advice and to the extent practicable, road agencies to consider providing sound mitigation (if warranted), to lessen the impact of the bridge structure and its operations on the facility.
- River Country In, Moama – Roads and Maritime Services to consider the feasibility of allowing U-turns at the northbound right turn lane on the Cobb Highway at the Perricoota Road traffic signals to enable direct access to the mote, subject to road safety audit. Subject to acoustic advice and to the extent practicable, road agencies to consider noise mitigation (if warranted) and assistance with works required to create an alternative entrance to the motel in Francis Street, including relocation of signage.

8 ASSUMPTIONS AND LIMITATIONS

All assumptions are included in the preceding chapters.

Limitations relate to quantification of benefits, opportunities and impacts associated with Ultimate Duplication of the bridge, as outlined in the preceding chapters.

9 REFERENCES

- Australian Bureau of Statistics 1996, Input-Output tables – Employment Multipliers 1996-97
- Australian Bureau of Statistics 2011, Household Expenditure Survey 2009-10
- Australian Bureau of Statistics 2011, Census of Population and Housing, 2011
- Australian Bureau of Statistics 2013, Counts of Australian Businesses, including Entries and Exits, Jun 2009 to Jun 2013
- Australian Bureau of Statistics 2013, Tourist Accommodation, Small Area Data, June Quarter 2013
- Australian Bureau of Statistics 2014, Average Weekly Earnings 6302.0, May 2014
- Bass Coast Shire Council 2009, Victorian Desalination Project Housing Accord
- Campaspe Shire Council 2006, Port of Echuca Heritage Policy
- Campaspe Shire Council 2012, Port of Echuca Revitalisation Fact Sheet
- Campaspe Shire Council 2014, Submission to Agricultural Competitiveness Issues Paper, April 2014
- Department of Employment – Small Area Labour Markets, June Quarter, 2014
- Department of Environment 2013, Referral of Proposed Action – Echuca-Moama Bridge, April 2013
- Department of Transport Planning and Local Infrastructure 2014, Victoria in Future 2014
- Jacobs 2015, Echuca-Moama Bridge Project, Environment Effects Statement – Traffic Impact Assessment, May 2015
- id Consulting 2014, Echuca Population and Household Forecasts, 2011 to 2036, May 2014
- id Consulting 2014, Shire of Campaspe Residents Place of Work 2011
- Murray Shire Council 2011, Murray Local Environment Plan 2011
- Murray Shire Council 2012, Murray Development Control Plan
- Murray Shire Council 2012, Response to Consultation Paper “Strengthening Your Community”, Murray Shire Council, September 2012
- Murray Shire Council 2014, Community Strategic Plan 2014/15 to 2023/24
- NSW Department of Planning and Natural Resources 2014, Local Government Area Population Household and Dwelling Projections: 2014 Final
- NSW Trade and Investment 2014, Value of Agricultural Production by Local Government Area
- RACV Tourist Park Guide 2010
- Tourism Victoria 2014, Travel to the Murray Region, Year Ended March 2014
- Transport for NSW – NSW Freight and Ports Strategy 2013
- Victorian Government – The Victorian Freight and Logistics Plan 2013
- www.bridgeartsproject.com

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APPENDICIES

Appendix A – List of Stakeholders Consulted

Hayden Cock – Chief Executive Officer, Committee for Echuca Moama

Andrew Jackson – Director, Neil’s Transport P/L

Beck Hayward – Economic Development Officer, Murray Shire Council

Leigh Robbins – Director of Engineering Services, Murray Shire Council

Anne Howard – Prosperity General Manager, Campaspe Shire Council

James McNulty – Strategic Land Use Planner, Campaspe Shire Council

Astrid O’Farrell – Business Network Officer, Campaspe Shire Council

Rowan Burgess – Echuca Paddlesteamers, Campaspe Shire Council

Andrew Lochhead – President, Echuca Moama Business & Trades Association

Michael and Glenda Black – River Country Inn, Moama

Betty McCoomb – Secretary and Board Member, Southern 80 Ski Race

Tom Smith – Acting Chief Executive Officer, Echuca-Moama & District Tourism

Ursula Graefe – Poppy’s Clothing and Gifts, Moama

Health Farrell – Farrell Fencing, Moama

Vern Beasley – Murray River Paddlesteamers

Michael McMahon – The Thai River Inn Restaurant, Moama

Chris Bilkey – Committee Secretary, Echuca-Moama Bridge Arts Project

Robyn Anderson – Jones Lang Lasalle (Centre Manager for the Moama Shopping Centre)

Jane Macpherson – Asset Manager, SCA Property Group (acting on behalf of Moama Marketplace)