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# Echuca-Moama Bridge EES

Social Impact Assessment Report



## Echuca-Moama Bridge EES - Social Impact Assessment

Client: VicRoads

## Prepared by

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		<b>T</b>
Glossary	/ OT	lerms

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	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).
	A batter is also known as an embankment.
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 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.

Term	Definition
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 clea 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.
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.
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.

Term	Definition			
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	<ul><li>One or more of the following:</li><li>1. The depth from the pavement subgrade level to the natural surface.</li><li>2. That portion of road where the formation is above the natural surface.</li><li>3. The material placed in an embankment.</li></ul>			
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 principal road in the road network with direct property access, such as the Murray Valley Highway.			
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, 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 Alignment (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.			
id-West 2A Alignment from the intersection of the Murray Valley Highway and Warren Str crosses the Campaspe River north of the Echuca Cemetery, before turning northeast towards Reflection Bend on the Murray River. Th alignment then passes immediately south of Reflection Bend and crosses the Murray River north of the Victoria Park Boat Ramp, the extends north in New South Wales to cross Boundary Road in Moa and connect with the Cobb Highway at Meninya Street.				

Term	Definition		
Mid-West 2B Alignment	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.		
Right-of-Way	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. Note: In NSW, a Right-of-Way is known as a Road Reserve.		
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.		

Term	Definition		
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.		
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.		

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## **Executive Summary**

VicRoads, in partnership with New South Wales Roads and Maritime Services (Roads and Maritime), is undertaking planning activities for a second Murray River crossing at Echuca Moama. The second crossing, known as the 'Echuca-Moama Bridge Project' (the Project) would alleviate congestion on the existing bridge, provide an alternate access for traffic between the two towns and cater for road freight, including Higher Mass Limits (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 potential environmental effects of the Project 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 both the EES and REF.

The 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 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.

AECOM and Public Place were engaged by VicRoads to prepare a Social Impact Assessment Report in response to the Scoping Requirements for the Project. The assessment has included a review of previous investigations, consideration of the existing conditions, an options assessment and impact assessment for the Mid-West Option.

The Project would produce a number of important positive social impacts. Specifically, the Project would:

- Relieve traffic congestion on the existing bridge and improve travel times for motorists. This
  would increase accessibility to local facilities and services for residents of Echuca and
  Moama;
- Relieve traffic congestion within the town centres of Echuca and Moama and in doing so
  improve the safety and amenity of these centres. Stakeholders consulted as part of the

Social Impact Assessment (SIA), including representatives of the Shire of Campaspe and the Murray Shire Council, indicated that the attractiveness of these centres is currently negatively affected by traffic, in particular heavy vehicle traffic;

- Significantly reduce the risks associated with disrupted access across the river (for example in the case of traffic incidents on the existing bridge). Given the interdependence of the townships of Echuca and Moama, including the reliance of residents on essential services located only in Echuca/and or Moama, the additional security provided by the new river crossing is essential; and
- Improve pedestrian and cyclist connectivity to key destinations including Victoria Park and the Moama Recreation Reserve;

In addition, the new bridge has the potential to become a structure of note within the region, and could potentially contribute to the success of the proposed Bridge Arts Project <u>www.bridgeartsproject.com</u>.

The construction and operation of the Project has the potential to interfere with a number of important social activities which take place in Victoria Park, including passive recreation, and local, regional and national sporting events. However, to avoid associated impacts, VicRoads has confirmed that:

- The grass tennis courts that would be impacted by the proposed alignment would be reinstated in a location to be agreed with the Council and the Tennis Club prior to the existing courts being decommissioned;
- Construction works associated with the Project would be managed so that important events such as the Easter tennis tournament and Southern 80 ski race can occur on their scheduled dates without major disruption; and
- VicRoads would continue to work with the Council in developing a Master Plan for Victoria Park that would reflect the changes resulting from the Project.

Construction noise from the use of plant and construction activities can impact on the community. Construction activities must meet the requirements of Environmental Protection Agency Regulations, with potential noise impacts managed through a Construction Environmental Management Plan (CEMP), with notification given to neighbours prior to any exceptional noise generating activities.

It is expected that the Murray River boat ramp would be closed at times during construction, which would result in a degree of inconvenience for those wishing to access the river for boating.

Amenity during the operational phase of the Project would be within limits set by relevant guidelines, including those set out within the Environmental Protection Authority Regulatory framework and VicRoads policies such as the Traffic Noise Reduction Policy, which sets noise criteria for freeways and aims to limit noise impacts from new or upgraded roads. Notwithstanding, notable changes to acoustic and visual conditions in Victoria Park are predicted. The predicted changes may be perceived by some users to detract from the appeal of the Park, such as those using it for passive recreation, to play tennis or as a place for caravan park accommodation (in particular Echuca Holiday Park annual site holders).

The Project would not require the compulsory acquisition of any dwellings and only very limited acquisition of private property. One residential property in Victoria and one residential property in NSW would be directly affected, through partial acquisition, though the dwellings on those properties would not be directly impacted. However, the Project would result in changes to

acoustic and visual amenity for some properties located on Warren and Crofton Streets. Residents of these properties may be sensitive to the expected changes.

The social impacts associated with the Initial Alignment and Ultimate Duplication works are anticipated to be similar, with a greater impact expected at the Initial Alignment stage when land acquisition and severance issues associated with the establishment of the Right-of-Way will occur. Impacts on amenity associated with the upgrade to the Ultimate Duplication would primarily be due to construction activity.

## 1.0 Introduction

## 1.1 **Project Overview**

VicRoads, in partnership with New South Wales Roads and Maritime Services (Roads and Maritime), is undertaking planning activities for a second Murray River crossing at Echuca Moama. The Echuca-Moama Bridge Project (the Project) would alleviate congestion on the existing bridge and provide an alternate access for residents and improved security of access for the local community, as well as catering for freight and agricultural machinery.

As part of the assessment and approval 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 effects on the environment. On 14th June 2013, the Minister determined that an Environment Effects Statement (EES) was required. As the Project extends into NSW, a Review of Environmental Factors (REF) is also required to assess impacts within New South Wales.

This Social Impact Assessment (SIA) has been prepared to inform the EES and REF. The EES is required to consider the potential effects of the Project on the environment to inform the public and other stakeholders and enable a Ministerial assessment of the Project to inform decision makers. The purpose of the REF is to document the likely impacts of the proposal on the environment and to detail recommended protective measures to be implemented during construction.

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

## **1.2** Purpose of this document

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

## 2.0 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 crossing of the Murray River at Echuca-Moama provides vital strategic access for the Murray Valley region's industries, workers, residents and visitors. This strategic role is demonstrated by the existing bridge at Echuca-Moama, which has been identified as one of the top three river crossings for freight tonnages and value of commodities in a comparison of Murray River bridges between the Snowy Mountains and the South Australian border.

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

The existing bridge does not provide a suitable level of service for the increased volume of 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 sizeable delays and in particular restricts the movement of emergency services vehicles from one town to the other.

Early investigations to provide for 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) / Environmental Impact Statement (EIS) study in 2000/2001 whereby the Western Corridor was approved by a Planning Panel;
- Preparation of an Environmental Report in 2010 for a Mid-West Option (this process was superseded in late 2010 following a change in Government); and
- The current EES process which formally commenced in 2013.

As a result of the investigations completed and stakeholder consultation conducted, VicRoads has amassed significant knowledge of existing environmental, social and economic conditions and community values in the Echuca-Moama region.

## 2.2 The Project

The Project involves the construction and operation of 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 the provisions of the Victorian and New South Wales assessment and approval processes. As part of the EES (within Victoria), the Preferred Alignment is assessed against a 'No Project' option, whereby it is

assumed that the existing road conditions and networks remain unchanged and in NSW a Review of Environmental Factors (REF) is being prepared to consider the impacts of the Project.

The Project comprises a Right of Way (ROW) sufficient to build a four lane road and duplicated bridges across both Rivers. The Project includes an elevated roadway and extensive bridging across the Campaspe River 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 an Ultimate Duplication (please refer to section 2.2.4 for further details). VicRoads has sought a detailed Social Impact Assessment (SIA) for the proposed Mid-West Option.

The purpose of the SIA is to assess the social impacts of the proposed Mid-West Option upon residents, visitors and businesses, community groups, community facilities and places of special interest within the study area. The social issues and impacts to be assessed include:

- Implications of the proposed second crossing on future urban development, including both employment and residential development within the study area;
- The potential social benefits of the second crossing, including safety improvements and opportunities for amenity improvements;
- The implications for local and regional residents and businesses in terms of access to properties and services, and
- The net community benefit of the second crossing in terms of social sustainability.

## 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 vehicles and oversized vehicles;
- To improve emergency services access between Echuca and Moama during emergency situations and major tourist and flood events, and
- 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

The Preferred Alignment (the Mid-West Option) includes a new roundabout at the intersection of the Murray Valley Highway and then extends north along the existing Warren Street road reservation. It also includes the construction of an upgraded intersection at Homan Street and Redman Street. A new right-turn lane would be line-marked for traffic queuing along Warren Street, to turn right into Homan Street to access the cemetery. The alignment also includes spill basins along Warren Street to treat and cater for the run-off from the new roadway.

The alignment then extends to the north-west from a new intersection (roundabout) to be created between Redman Street and Campaspe Esplanade, extending across the Campaspe River, Crofton Street and the former Echuca College site. The alignment then extends north across the western edge of the Echuca Sports and Recreation Reserve. The alignment then turns north/northeast before turning to cross the Murray River in an east/north east direction to immediately north of the Echuca Holiday Park. Finally the alignment returns approximately north with Forbes Street/Cobb Highway and connects to the Cobb Highway at the intersection with Perricoota Road.

Its key features and sensitivities include:

- Extensive bridging across the Murray and Campaspe Rivers;
- New spill retention basins / flood relief structures to be constructed along Warren Street, adjacent to Campaspe Esplanade, north of the tennis courts and south of the Lions Park in NSW;
- New right-turn lane to be provided for (southwest bound) cemetery traffic;
- Provision for upgrade of an existing service road between Homan and Redman Streets;
- Intersection treatments including new roundabouts at the intersection of Murray Valley Highway/Warren Street and Warren Street/ new road, and traffic signals on the Cobb Highway at Meninya Street and Perricoota Road;
- A concrete slab construction over the sand hill (former school site); and
- Loss of 6 tennis courts that would need to be relocated.

The Preferred Alignment is shown in Figure 1.

Figure 1: The Mid-West Option



## 2.2.3 Overall Project Timing

The construction of the Initial Alignment would be subject to the provision of funding and is expected to take up to three (3) years to complete. Timing for the Ultimate Duplication is subject to future traffic demand and regional urban growth.

Once planning and environmental approvals are obtained, the two main activity sequences which follow are pre-construction and construction. The timing of commencement of construction of the Project would be dependent on the availability of construction funding, but once available the land acquisition and pre-construction activities may commence.

The pre-construction phase would include detailed site investigations, land acquisition and detailed design, and take around six to nine months to complete. The acquisition of land for the construction of the Project would include land required for the Ultimate Duplication of the alignment. Depending on the method of project delivery (for example, construct only or design and construct), detailed design may be undertaken concurrently with land acquisition. Tendering of the contract for construction is expected to take around six months. Construction of the initial stage of the Project is expected to take up to three years from commencement of works.

Pre-construction for the roundabout at the Murray Valley Highway and Warren Street is expected to commence in 2015. Pre-construction for the balance of the Preferred Alignment is subject to funding.

## 2.2.4 Project Stages

## Initial Alignment- Single Carriageway

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.

Most existing local road and property accesses will be maintained directly or via a new service road in Warren Street. In some instances, local road connectivity may change or be closed with alternative access arrangements provided. Access to all properties will be maintained.

The Initial Alignment involves a rural highway standard with a two lane –two way carriageway. The alignment includes a roundabout at the Murray Valley Highway, upgrade to Warren Street, new carriageways comprising bridging and at grade works over the Campaspe River, Victoria Park and over the Murray River, connecting with the Cobb Highway in New South Wales.

The proposed configuration of the arterial road intersections is consistent for the Initial Alignment and Ultimate Duplication. These intersections are:

- Murray Valley Highway/Warren Street, Echuca;
- Warren St/new road, Echuca;
- Meninya Street/Cobb Highway, Moama; and
- Perricoota Road/Francis Street/Cobb Highway, Moama.

#### Ultimate Duplication

The proposal to set aside land for possible future construction of a second carriageway to provide a four lane divided carriageway would result in a larger footprint. Under the Ultimate Duplication, the new carriageway would be constructed on the western side of the existing alignment, except for works along Warren Street, which would be on the south-eastern side of the Initial Alignment.

The Ultimate Duplication would include the same access arrangements as those proposed in the Initial Alignment.

## Potential Construction Staging

Construction scheduling of the Project would be established at the time of contract preparation and engagement of a construction contractor. Construction contracts prepared by VicRoads will stipulate that scheduling of works would take into account seasonal uses and demands of the Project Area. Major events/busy holiday periods in Echuca, Moama and the wider region including but not limited to the following will be taken into consideration in construction scheduling to ensure impacts are minimised as much as possible:

- Peak tourist season
- Southern 80 Ski Race
- Deniliquin Ute Muster
- Easter
- Echuca Lawn Tennis Tournament
- Riverboats Music Festival

There is potential to construct the Project in a number of stages (either concurrent or at different times) or as a single contract. Potential staging of construction is outlined below:

- Stage 1: Roundabout at Murray Valley Highway: On 31st July 2014, the former Deputy Premier announced the Mid-West Option as the Preferred Alignment for the Project. The announcement also included a commitment of funding for early works associated with construction of the roundabout at the intersection of Murray Valley Highway and Warren Street. The configuration of the roundabout is consistent for the Initial Alignment and Ultimate Duplication design.
- Stage 2: Upgrade to Warren Street: Works would involve the construction/ upgrade to culverts, new pavement, construction of spill basins and line marking. This stage could also include the construction of the second roundabout at Warren Street. This would include the upgrade of Warren Street between the Murray Valley Highway and the Campaspe River Bridge.
- Stage 3: Warren Street to Meninya Street: This would include the construction of the section of new road and shared path between Warren Street and Meninya Street. A shared use path would be provided along the length of the alignment from Warren Street to Meninya Street. The path would be at grade and adjacent to the alignment, except at the Campaspe and Murray Rivers where it would be provided on the bridges.
- Cobb Highway upgrade: Works would include installation of new traffic signals at the Perricoota Road/Cobb Highway and Meninya Street/Cobb Highway intersections in Moama and the resurfacing and connection of Francis Street to the Cobb Highway.

Upon completion of each stage the construction site would be landscaped and re-vegetated, including reinstating topsoil, seeding, planting trees and shrubs, installing weed mats and mulch, and installing any design elements, as required.

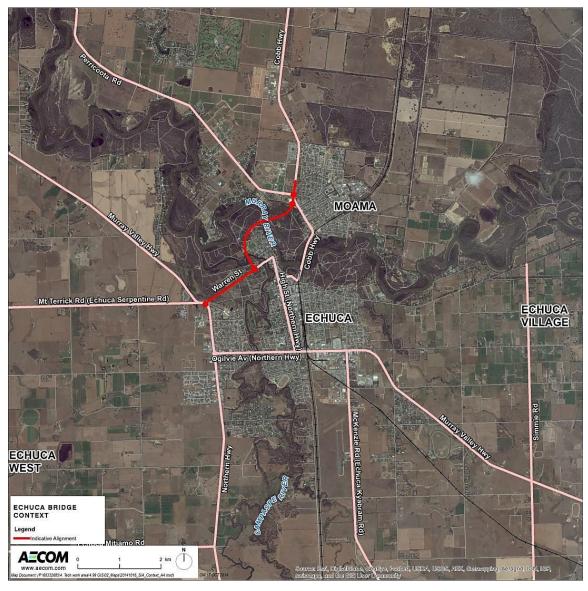
## 2.3 Study Area

The proposed Mid-West Option is situated in the north-west of the towns of Echuca and Moama, located on the shared border of Victoria and New South Wales. The Project Area encompasses a Right-of-Way sufficient for the Ultimate Duplication and the construction area of the alignment.

The Project Area extends from the intersection of the Murray Valley Highway and Warren Street in Echuca (Vic) to the intersection of Cobb Highway and Perricoota Road in Moama (NSW) (as indicated in Figure 1).

The Study Area for this SIA is broader than the Project Area and incorporates the Moama and Echuca township areas surrounding the proposed Mid-West Option which comprises the Echuca-Moama Bridge Project (refer to Figure 2). The Study Area has no defined boundary. It includes the immediate properties and land uses impacted by the Project as well as the broader sub-regional and regional areas and associated land uses.

#### Figure 2 Study Area Context Plan



The current assets, values and uses of the land within the Project Area are known as the 'existing conditions'. These conditions are the baseline against which the potential impacts of the Project have been assessed. Existing conditions of an area broader than the Project Area (the Study Area) will be relevant in some cases.

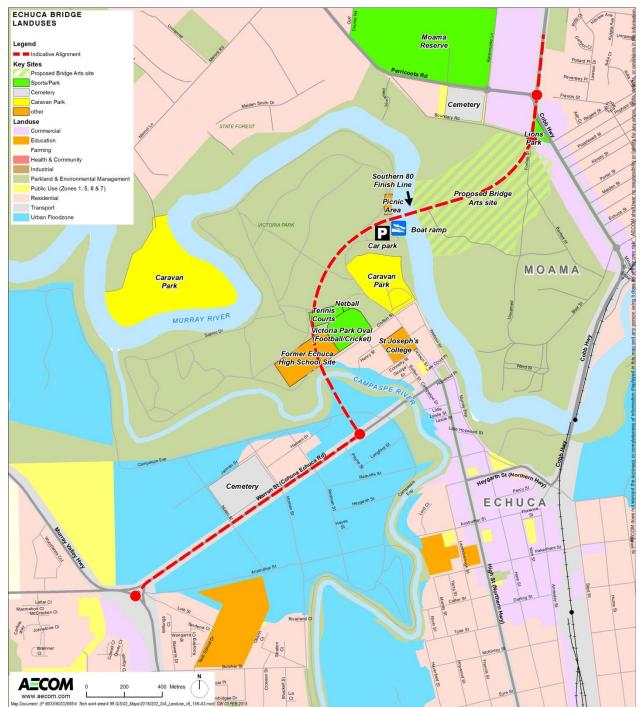
The Project area is generally across flat low lying flood prone land within a semi-rural and semiurban environment. Land use varies from commercial, Crown Land, public and private bushland, recreation and tourism and residential (refer to Figure 3 over page).

Echuca is located within the Shire of Campaspe and Moama within the Murray Shire Council. Historically, Echuca has continually been the larger of the two towns. The population of Echuca is three times that of Moama but, in recent years, the population of Moama has been growing at twice the rate of Echuca. The social and economic roles of the two towns are closely linked. The towns function and are locally recognised as a single community. They rely heavily on each other for services and facilities, with extensive collaboration occurring and little need for duplication of services. The vast majority of employment, education, emergency and social services are provided in Echuca.

The major economic activities for Echuca and Moama are agriculture, manufacturing and tourism. Tourism is a significant contributor to the economy of the area, with the historic Port of Echuca, river-based activities and recreation being the main attractions. Tourism during peak seasons has a significant impact on the functioning of both towns. During peak tourism seasons and events, the capacity of the local road network in both towns in the vicinity and beyond the immediate area of the existing bridge crossing is overstretched.

The Murray River represents a natural division of the towns. The existing Murray River crossing connects the town to the centres of the Echuca and Moama townships and provides an important link between the townships for local traffic and surrounding regions. This is the only bridge crossing in the Echuca-Moama area with the nearest alternative bridge at Barmah to the east which requires a round trip detour of 101km. The existing bridge has two traffic lanes within a 7.4m wide carriageway between bridge barriers. Whenever wide vehicles or vehicles with loads exceeding 3m in width need to cross the bridge, the traffic in the opposing direction has to be stopped clear of the bridge while the wide load crosses. Most modern agricultural machinery is much wider than 3m to enable efficient operations. The round trip detours of 101km through Barmah or 195km through Barham are unsuitable alternatives for agricultural machinery which is relatively slow moving.

As such, a key consideration for a second crossing over the Murray River is improving access and movement between the towns, reinforcing the image of and function as a single township.



## Figure 3 Context Map of Project Area

## 3.0 Methodology

## 3.1 Background to Social Impact Assessment

A SIA is a social research tool that is used to review and assess the potential social impact of a planned interaction, such as a policy change, public program or infrastructure development. A SIA is used to review the intended and unintended social consequences, both positive and negative, of planning interventions and any social change processes invoked by those interventions. The International Association of Impact Assessment (IAIA) identified the following social impact variables as a way to conceptualise social impacts.

Social impacts are changes to one or more of the following:

- **People's way of life**: that is, how they live, work, play and interact with one another on a day-to-day basis;
- People's culture: that is, their shared beliefs, customs, values and language or dialect;
- People's community: its cohesion, stability, character, services and facilities;
- **People's political systems**: the extent to which people are able to participate in decisions that affect their lives, the level of democratisation that is taking place, and the resources provided for this purpose;
- **People's environment**: the quality of the air and water people use; the availability and quality of the food they eat; the level of hazard or risk, dust and noise they are exposed to; the adequacy of sanitation, their physical safety, and their access to and control over resources;
- **People's health and wellbeing**: health is a state of complete physical, mental, social and spiritual wellbeing and not merely the absence of disease or infirmity;
- People's personal and property rights: particularly whether people are economically affected, or experience personal disadvantage which may include a violation of their civil liberties;
- **People's fears and aspirations:** their perceptions about their safety, their fears about the future of their community, and their aspirations for their future and the future of their children.<sup>1</sup>

## 3.2 Scope of the Social Impact Assessment

Social impacts can encompass a wide range of issues and dimensions. However the focus of this assessment is the evaluation objective in the EES Scoping Requirements (p12) 'to minimise adverse social and land use effects, including impacts on existing uses of the Crown Land'.

The key issue identified in the EES scoping requirements relating to this evaluation objective is: 'potential for the project to unreasonably impact on existing recreational and non-recreational uses of the Crown Land'. This issue is considered, as are potential impacts on the use of private land.

<sup>&</sup>lt;sup>1</sup> Source: International Association of Impact Assessment, 2003 International Principles for Social Impact Assessment (www.iaia.org)

Positive social impacts associated with road projects typically arise due to improved safety and connectivity for road users and the redirection of traffic away from sensitive social receptors. Road projects also cause three main types of physical change with the potential to generate negative social impacts: land acquisition; land severance; and alterations to amenity (principally visual and acoustic amenity).

In this context, it is recognised that the EES Scoping Requirements include Evaluation Objectives relating to 'Amenity' and to 'Landscape Values and Visual Amenity'. In response to these evaluation objectives, technical/quantitative assessments of the extent and significance of changes to the acoustic and visual environment have been undertaken by other specialists. The SIA draws on this work and considers predicted amenity changes (along with potential acquisition and severance) as a physical change mechanism which can potentially generate social impacts for users of the land traversed by the alignment (social receptors).

Consistent with best practice in SIA, the following definitions have been employed for the SIA:

- A social change or effect is an observable social change invoked by an intervention
- Social impacts comprise the experience (positive or negative) of a social change or effect by specific individuals or groups (social receptors).

Social impacts are distinct from social changes/effects because different individuals and groups (social receptors) can experience social change differently depending on their circumstances (Van Schooten et al., 2003).

## 3.3 Assessment of Significance

The EES scoping requirements state that likely effects of the Project should be assessed in terms of their significance. The assessment of significance was undertaken considering the magnitude of social changes or effects likely to generate impacts and the sensitivity of social receptors to these changes. Following Rowan (2009):

- Magnitude is an objective consideration and is equivalent for all social receptors.
   Magnitude is considered in terms of:
  - Duration
  - Scale (spatial extent and/or number of social receptors affected), and
  - Reversibility
- **Sensitivity** the capacity of particular receptors to cope with/benefit from a predicted change. Sensitivity is inherently subjective.

Table 1 was used to guide the descriptions of magnitude and sensitivity, to ensure consistency. However, quantitative ratings have not been assigned.

Significance	Sensitivity	Magnitude		
(negative/ positive)		Duration	Scale	Reversibility
Extremely Negative/ Positive	Change is considered unacceptable/necessary by social receptor	Greater than 10 years	State-wide community	Permanent
Negative/ Positive	Change is considered detrimental/highly beneficial by social receptor	5-10 Years	Regional community	Largely permanent
Moderately Negative/ Positive	Change is undesirable/ beneficial for social receptor	2-5 years	Local community	Some important aspects are permanent
Minor Negative/ Positive	Change is somewhat acceptable but not desirable/has limited benefits for social receptor	6 months to 2 years	Part of a local community	In most important respects can be reversed
Negligible	Change is neither desired or resisted by social receptors	Less than 6 months	A small number of individuals	Can be fully reversed

#### Table 1 Significance of Social Impacts

## 3.4 Research Tasks and Data Sources

A number of research tasks and data sources were relied on to complete this SIA, which are set out below.

## This SIA Study (2014)

- A site visit (undertaken September 2014);
- Relevant literature, including previous SIA's undertaken for the Project and State and local policy (focusing on social policy context);
- Spatial data sets and documents which describe the location and character of community facilities and open space within the Study Area;
- 2011 Census data and population forecasts for Echuca, Moama and surrounding areas;
- Targeted consultation with key stakeholders to augment that conducted as part of previous SIAs for the Alignment Options assessment (see below). Representatives of the following groups were consulted during October 2014 (see Appendix A):
  - Shire of Campaspe (VIC) and Murray Shire Council (NSW);

- Sporting Clubs: Echuca Football and Netball Club, Echuca Tennis Club;
- Echuca Holiday Park;
- Tourism: (Echuca-Moama & District Tourism Association);
- Southern 80 Ski Race;
- C4EM;
- Bridge Arts Project representatives.

## **AECOM SIA - 2012**

AECOM prepared a SIA in 2012. The SIA investigated four options, none of which correspond exactly with the alignment which is the subject of this report. Community consultation, undertaken as part of this study included:

- A Community Consultation Group was formed with members representing a broad cross section of the community;
- A focus group with potentially affected residents held at the Shire of Campaspe Council meeting room on 3 May 2012 and attended by 30 residents. Invitations were sent to 341 properties in the above streets and surrounding area, including to permanent residents at the Echuca Holiday Park and Merool on the Murray Caravan Parks;
- A meeting with residents of Cunningham Downs Aged Care Facility. The meeting was attended by 40 residents including some who are car drivers and some who use mobility 'scooters';
- Meetings with sporting clubs including the Echuca Lawn Tennis Club, the Echuca Football/Netball Club, the Echuca Junior Football Club, the Echuca Cricket Club, and the Echuca and Moama Cycling Club;
- Intercept surveys were undertaken targeting users of Victoria Park visitors at various locations within Victoria Park. A total of 34 surveys were conducted.

## URS SIA - 2011

URS prepared a SIA in 2011 which outlined that the Mid-West option would be fully contained within the investigated corridor, making consultation undertaken as part of that SIA particularly relevant. Face-to-face interviews were undertaken with 10 residents from each of the Warren Street, Crofton Street and Western Moama areas (representing approximately 15, 30 and two percent of the households in each area respectively).

## 2009 Survey

Survey data was collected by Crosby Textor in 2009 using a telephone (CATI) survey of residents across Shire of Campaspe. A total of 500 people were surveyed in the locality of Echuca and 200 people in the balance of the Shire (total sample of 700). At the time of the survey the Mid-West Option was being tested within the community by VicRoads.

## 4.0 EES Scoping Requirements

## 4.1 EES Scoping Requirements

The EES Scoping requirements specific to the scope of the social impact assessment and the separate land use impact assessment are as follows:

## **Draft Evaluation objective**

- To minimise adverse social and land use effects, including impacts on existing uses of the Crown land.

## Key issues for objective

- The potential for the project to unreasonably impact on land, including existing recreational and non-recreational uses of the Crown land.

## Priorities for characterising the existing environment

- Describe the demographic and social character of nearby residential and tourist communities in the vicinity of the project, as well as local movement patterns and any places with particular community recreational or cultural significance.
- Identify any existing sporting and community infrastructure, land use plans or related objectives for land within, adjacent to or affected by the project, including the Murray River corridor.

## **Design and mitigation measures**

- Identify potential and proposed design responses and measures to minimise adverse social and land use effects.

## Assessment of likely effects

- Assess the potential effects on communities living near the project in terms of potential severance, loss of recreational and non-recreational uses and values and reduction in access to sporting or community infrastructure.
- Evaluate the consistency of the project against the policies and provisions of the Campaspe Planning Scheme and other relevant land use planning strategies.

## Approach to manage performance

- Describe any further measures that are proposed to enhance social outcomes for residents living in the vicinity of the project, including as part of the EMF (see section 4.10 of the EES) and resulting residual effects.

## 5.0 Legislation, Policies and Guidelines

As part of this Social Impact Assessment for the Project, relevant legislation, policies or guidelines that are relevant to the Project have been reviewed below.

## 5.1 State

## 5.1.1 Victoria Policy and Legislation

## Transport Integration Act

The purpose of the Transport Integration Act (TIA) 2010 is 'to create a new framework for the provision of an integrated and sustainable transport system in Victoria' that recognises the interdependency of transport and land use (DPCD, 2011).

The TIA clarifies and defines VicRoads' role in the integrated transport system. VicRoads is required to provide, operate and maintain a road system consistent with the vision statement and transport system objectives and in collaboration with other transport bodies and public entities. It is a requirement to do this in a manner which supports sustainable Victoria by increasing the share of public transport, walking and cycling trips as a proportion of all transport trips and improving environmental performance and contributing to social wellbeing by providing access to opportunities and liveable communities, and promoting economic prosperity.

The transport system objectives are set out in Part 2, Division 2 of the TIA. Relevant objectives in the context of the SIA are:

- Improving access
- Facilitating economic prosperity
- Actively contributing to environmental sustainability
- Effectively integrating transport and land use to facilitate access to social and economic opportunities
- Ensuring that transport infrastructure and services are provided in a timely manner, and
- Safety and support for health and wellbeing.

## **Relevance to Project**

The TIA requires that Planning Authorities have regard to the transport system objectives and decision making principles set out in the Act whenever a planning scheme amendment is likely to have a significant impact on the transport system. Given the scale of investment proposed, this SIA assumes that the Project would activate this requirement. The TIA's objectives and assessment criteria are therefore relevant to the assessment of any social impacts relating to the Project.

## Planning and Environment Act 1987

The *Planning and Environment Act 1987* (Vic) (*PEA*) sets the planning framework in Victoria. Planning schemes prepared under the provisions of the PEA apply to each municipal area in Victoria. It has the objective of safeguarding a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors.

The objectives of planning are defined as:

- To provide for the fair, orderly, economic and sustainable use and development of land.
- To provide for the protection of natural and man-made resources and the maintenance of ecological processes and genetic diversity.
- To secure a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria.
- To conserve and enhance those buildings, areas or other places which are of scientific, aesthetic, architectural or historical interest, or otherwise of special cultural value.
- To protect public utilities and other assets and enable the orderly provision and coordination of public utilities and other facilities for the benefit of the community.
- To facilitate development in accordance with the objectives set out in the points above.
- To balance the present and future interests of all Victorians.

## **Relevance to Project**

The planning and construction of the proposed Mid-West Option would form a small but vital part of a broader land use, housing, connectivity and employment strategy of the State. The *PEA's* objectives and assessment criteria are therefore relevant to the assessment of any social impacts for the Mid-West Option and broader study area.

Consequently it is necessary for the SIA report to include a consideration of potential social impacts upon the working, living and recreational environment now and into the future and whether the Project would contribute to securing a pleasant, efficient and safe working, living and recreational environment for key stakeholders of the area.

Where social impacts are identified, appropriate mitigation measures would need to be implemented.

## Plan Melbourne: Metropolitan Planning Strategy (2014)

The Victorian Government released *Plan Melbourne* in May 2014. Plan Melbourne is the Victorian Government's metropolitan planning strategy, guiding the way the city will grow and change over the next 40 years. It is a strategy to house, employ and connect more people to jobs and services closer to where they live.

Victoria's economy and liveability depend on strong connections between Melbourne and the state's regional cities. Victoria is a relatively compact state and with improving transport and communication links, the regional cities are increasingly within commuting distance of Melbourne.

A key policy of Plan Melbourne is 'A State of Cities' which aims to 'maximise the growth potential of Victoria by developing a state of cities which delivers choice, opportunity and global competitiveness'. Specifically, Plan Melbourne aims to integrate metropolitan and peri-urban and regional planning, and rebalance Victoria's population growth from Melbourne to rural and regional Victoria across the life of the strategy.

Initiative 6.2.2 requires a review of regional city growth opportunities, which will 'be dependent on the timely provision of infrastructure that reduces transport costs and builds the human

*capital endowment of these cities*'. Direction 6.4 seeks to improve connections between cities; specifically there is a need for 'well planned land use and transport corridors that better connect Melbourne and regional Victoria if we are to maintain our pre-eminent national role in freight and logistics' with a range of initiatives supporting this.

In support of these objectives, Plan Melbourne has divided Victoria into eight regions, each covered by a regional growth plan. Regional growth plans provide broad direction for land use and development across regional Victoria with a more detailed planning framework for key regional centres. The Regional Growth Plans provide 20–30 year land-use strategies and set out how each region can accommodate a greater share of the state's growth. The Loddon Mallee North Regional Growth Plan includes Echuca and is discussed in greater detail below.

## **Relevance to Project**

Echuca falls within the Loddon Mallee North Regional Growth Plan, with Echuca identified as a Regional Centre within the plan and an area supporting freight flows within the State. The Project would provide transport infrastructure consistent with the town's identified role as a regional centre, facilitates movement within the township and the movement of freight and logistics.

## A Fairer Victoria - Real Support, Real Gains (2010)

A Fairer Victoria - Real Support, Real Gains is State government policy outlining the commitment to reducing disadvantage and promoting social inclusion. One of the four Priority Areas outlined is 'Creating Liveable Communities', which is to be achieved by improving physical and social infrastructure in areas of high need and high growth and improving levels of community safety.

#### **Relevance to Project**

The Project would provide improved access to employment, social and recreational opportunities for residents of the towns and surrounding areas, and improves levels of community safety.

## Securing Victoria's Economy (2013)

Securing Victoria's Economy is the Government's strategy to strengthen Victoria's economic future, building on the State's many competitive strengths, including a diverse and flexible economy, a highly skilled workforce, strong export performance, and immense liveability. It lays out a vision for Victoria's economic future, and sets out key actions the Government will take to secure Victoria's position as not just a leading state, but as a regional economic centre, benefiting from and contributing to the Asian century.

The Strategy identifies the need to invest in strategic infrastructure opportunities in a coordinated way to keep pace with population growth and maintain liveability and to support the economic growth and liveability of Victoria into the future.

## **Relevance to Project**

Securing Victoria's Economy specifies the Government's commitment to progress planning for the optimal alignment of the Echuca-Moama bridge which would improve the efficiency of the Northern Highway as a road link for passenger movements and freight.

#### Victoria in Future (2014)

The Victorian Government's official population and household projections, Victoria in Future 2014 (VIF2014) projections incorporate 2011 ABS Census data and current population estimates. These projections supersede the projections published by DPCD in 2012. Campaspe had a total population of 36,855 in 2011, projected to increase to 40,992 by 2031 representing a population growth of 0.5%, or 4,137 people.

#### Relevance to Project

Utilisation of 2011 Census data will assist in the assessment of the social impacts of the proposed development. Full details are contained within the Demographics section of this report.

#### Victoria Planning Provisions – State Planning Policy Framework

The State Planning Policy Framework (SPPF) is standard policy embodied in each planning scheme in Victoria and is used to inform planning decisions. The State Planning Policy Framework is structured around a series of themes, of which the following are relevant to the assessment of social impacts of the Mid-West Option:

#### Clause 10.04 Integrated decision making

Clause 10.04 of the SPPF requires planning authorities to undertake integrated assessments which balance conflicting objectives in favour of net community benefit as follows:

- Society has various needs and expectations such as land for settlement, protection of the environment, economic well-being, various social needs, proper management of resources and infrastructure. Planning aims to meet these by addressing aspects of economic, environmental and social well-being affected by land use and development.
- Planning authorities and responsible authorities should endeavour to integrate the range of
  policies relevant to the issues to be determined and balance conflicting objectives in favour
  of net community benefit and sustainable development for the benefit of present and future
  generations.
- Consistent with the objectives of local government under the Local Government Act 1989, municipal planning authorities are required to identify the potential for regional impacts in their decision-making and co-ordinate strategic planning with their neighbours and other public bodies to achieve sustainable development and effective and efficient use of resources.

#### Clause 11 Settlement

This Clause states that planning is to anticipate and meet requirements for existing and future communities through provision of zoned and serviced land for housing, employment, recreation and open space, commercial and community facilities and infrastructure. Planning for settlement needs to recognise:

- Health and safety
- Diversity of choice

- Economic viability
- A high standard of urban design and amenity
- Energy efficiency
- Prevention of pollution to land, water and air
- Protection of environmentally sensitive areas and natural resources
- Accessibility
- Land use and transport integration.

## Clause 11.03-2 Open space management

The objective of Clause 11.03-2 is 'To provide for the long term management of public open space'. A strategy is to '*Ensure the provision of buildings and infrastructure is consistent with the management objectives of the park*'.

## Clause 11.04-6 A State of cities

The objective of Clause 11-04-6 is 'To maximise the growth potential of Victoria by developing a state of cities which delivers choice, opportunity and global competitiveness', based on the policy guidelines set out within Plan Melbourne: Metropolitan Planning Strategy. Clause Strategies include:

- Rebalance Victoria's population growth from Melbourne to rural and regional Victoria.
- Integrate metropolitan, peri-urban and regional planning implementation.
- Improve connections between cities.

## Clause 11.05-1 – Regional development settlement networks

The objective of Clause 11.05 is 'to promote the sustainable growth and development of regional Victoria through a network of settlements identified in the Regional Victoria Settlement Framework Plan' (Framework Plan).

## Clauses 11.06 - 11.13 Regional growth plans

These Clauses set out the objectives and strategies of Victoria's eight regional growth plans. The Shire of Campaspe is included within the Loddon Mallee North Regional Growth Plan. Details of this Plan are set out below.

## Clause 12.01-2 Native vegetation management

The objective of Clause 12.01-2 is 'To ensure that permitted clearing of native vegetation results in no net loss in the contribution made by native vegetation to Victoria's biodiversity'.

## Clause 18 Transport

Clause 18 Transport states that 'Planning should ensure an integrated and sustainable transport system that provides access to social and economic opportunities, facilitates economic prosperity, contributes to environmental sustainability, coordinates reliable movements of people and goods, and is safe'.

Included in Clause 18 is the objective for the transport system which is 'to coordinate development of all transport modes to provide a comprehensive transport system'.

#### Clause 18.02-4 Management of the road system

The objective of clause 18.02-4 is 'To manage the road system to achieve integration, choice and balance by developing an efficient and safe network and making the most of existing infrastructure'.

# Clause 19 Infrastructure

The objective of clause 19 includes 'Planning for development of social and physical infrastructure should enable it to be provided in a way that is efficient, equitable, accessible and timely'.

### **Relevance to Project**

The Framework Plan identifies Echuca as a 'regional city' where ongoing urban development will be supported and directed as a priority. The better connection of regional Victoria is a key State policy.

The SPPF supports the ongoing development of Echuca, the integration of its land use and transport connections, and the encouragement of efficient, safe, sustainable and equitable transport options.

# Loddon Mallee North Regional Growth Plan (2014) (LMNRG Plan)

The Shire of Campaspe is included within the LMNRG Plan. The LMNRG Plan identifies important economic, environmental, social and cultural resources to be preserved, maintained or developed and opportunities for supporting regional level infrastructure, providing an essential contribution to the long-term sustainability of the region.

Key challenges for growth include the need to safeguard transport routes to support efficient freight and people movement and economic diversification and maintenance and replacement of ageing infrastructure.

Echuca is identified as a main population centre and a 'key town' where major urban, industrial and commercial growth in the Campaspe region will be focused. The LMNRG Plan states that

..future growth will be accommodated by infill development and new residential land releases through the expansion of Echuca West. The local economy will continue to rely on agriculture, related manufacturing, food processing and services. Growth in transport, health services and tourism will be critical for the town's future as a regional centre.

The LMNRG Plan states that the transport network and other infrastructure will be critical in meeting projected growth and population change. Freight movement supporting agriculture, particularly grain growing, food processing, mineral sands extraction and other industries will be vital. Upgrading freight and transport infrastructure can enhance primary production, including agriculture and mining. As such, a 'future direction' for regional infrastructure includes supporting road, rail and logistics improvements to support economic growth and accessibility.

A key outcome for delivering regional growth is improving cross border and inter-regional relationships which have harnessed emerging economic development opportunities and road and rail upgrades that support efficient transport and access to markets.

# **Relevance to Project**

The Loddon Mallee North Regional Growth Plan identifies Echuca as a 'key town' where 'major urban, industrial and commercial growth in the Campaspe region will be focused.

The Echuca-Moama Bridge Project would respond to a range of LMNRG Plan objectives, including upgrading freight and transport infrastructure which would support economic growth and improve accessibility and support the projected growth of Echuca and the Loddon Mallee North region.

The Project would improve cross border and inter-regional relationships whilst supporting efficient transport and access to ports and markets. The Project should ensure the important economic, environmental, social and cultural resources of the Project Area are preserved and maintained.

# 5.1.2 NSW Legislation and Policy

# Road Transport Act 2013 (RT Act NSW)

The Act covers general road transport legislation, such as licencing, vehicle registration, safety and traffic management (chapter 5), road transportation (Chapter 6). The Act seeks to consolidate in the one Act most of the existing statutory provisions concerning road users, road transport and the improvement of road safety.

#### Relevance to Project

This legislation relates to safety and traffic management, road transportation, important considerations for future road users of the Echuca-Moama Bridge.

# Environmental Planning and Assessment Act 1979

Planning and development is carried out under the Environmental Planning and Assessment Act 1979 (NSW) (EP&A Act) and Environmental Planning and Assessment Regulations 2000 (NSW). The Act defines the approval process for proposed developments in NSW. The objectives of the EP&A Act includes

- The proper management, development and conservation of natural and artificial resources
- The promotion and co-ordination of the orderly and economic use and development of land
- The protection of the environment
- Ecologically sustainable development
- Economically sustainable development
- The provision of increased opportunities for public involvement and participation in the environmental planning and assessment process.

The plan-making system in NSW is set out in Part 3 of the EP&A Act. Environmental planning instruments (State environmental planning policies and local environmental plans) are legal documents that regulate land use and development. Local environmental plans guide planning decisions for local government areas. Local zoning and development controls enable councils to manage land use. Development control plans, prepared in accordance with the EP&A Act,

assist in achieving local plan objectives by providing specific, comprehensive requirements for certain types of development or locations.

The EP&A Act provides for members of the public to participate in planning decisions that will shape their community's future.

Under Part 4 of the EP&A Act, the NSW portion of the Project may be undertaken without development consent in accordance with Clause 94 of State Environmental Planning Policy (Infrastructure) 2007.

Part 5 of the Act provides for the control of 'activities' that do not require approval or development consent. Prior to determining whether to proceed with the activity associated with the Project, and in accordance with Part 5 of the EP&A Act, Road and Maritime is required to 'examine and take into account to the fullest extent possible all matters affecting, or likely to affect, the environment by reason of that activity'. This Review of Environmental Factors (REF) documents the required assessment of environmental impacts and describes measures proposed to mitigate any adverse impacts.

#### Relevance to Project

Similar to the requirements of comparable Victorian legislation, the EP&A Act 1979 supports the management of sustainable economic growth within a framework that also includes environmental protection, prudential resource management and community needs and views.

# NSW Freight and Ports Strategy (2013) (NSW F&P Strategy)

The NSW freight network comprises roads, rail, ports and terminals, airports and freight activity precincts. Freight and logistics are an indispensable component of economic activity and it is estimated some \$8.8 billion is spent on the construction of roads, bridges, railways, harbours, and warehouses and the resulting economic activity that this construction generates. The largest NSW logistics task is the movement of goods within the state, which accounts for 62 per cent of freight volume. This task is dominated by coal and aggregates.

The NSW F&P Strategy sets out a range of Strategic Action Programs to improve network efficiency, capacity and sustainability. Implementation includes assessment of the road network (Chapter 5B). Roads provide a vital network of connections for freight movements, including journeys to supermarkets and other businesses in urban areas.

Tertiary and local roads are typically where connectivity issues for freight access occur. They are also where Higher Mass Limit (HML) and High Productivity Freight vehicles (HPFV) tend to have restricted access.

The Project is listed within the Strategy as a 'Bridges for the Bush- Program 1- Murray River crossing at Echuca on Cobb Highway (joint NSW & VIC)'. Program 1 includes the upgrade or replacement of the bridge to provide accessibility for higher productivity vehicles (i.e. heavier and larger trucks) thereby improving freight productivity in Regional NSW.

#### Relevance to Project

The NSW F&P Strategy recognises that some rural bridges and roads across the NSW road network are ageing, low-strength and struggling to keep up with the increasing loading demands from road freight. Replacing, upgrading or strengthening the Echuca-Moama Bridge is necessary for providing access for HMLs and HPFVs.

The 'Bridges for the Bush Program' prioritises the Murray River crossing at Echuca on the Cobb Highway.

Whilst the replacement would facilitate safe and effective access for heavy vehicles, including both HPV and HMLs, improving access for heavy vehicles would also have benefits for passenger vehicles, including improved safety.

# Murray Regional Environment Plan No. 2- Riverine Land (1994) (MRE Plan)

The Murray River is identified as an asset of National and State significance. The River and its environs serve a variety of environmental, economic, social and recreational and tourist functions. Principles of ecologically, economically and socially sustainable development are particularly important along the Murray River corridor. The MRE Plan seeks to ensure the Murray River and its floodplain is able to support a range of productive land uses.

The MRE Plan coordinates planning along the Murray River and the implementation of planningrelated aspects of the Murray Darling Basin Commission strategies. It aims to simplify the consultation process between agencies and councils. It also promotes consistency between NSW and Victoria planning in relation to the Murray River and its floodplain.

#### Relevance to Project

The MRE Plan supports the integrated planning and management of the Murray River and its floodplain.

### Draft Murray Regional Strategy (2009) (Draft MR Strategy)

The Murray Regional Strategy guides land use planning decisions of local government and help inform the regional decisions on service provision and infrastructure by State agencies for the period to 2036. The Draft MR Strategy was prepared for the 10 local government areas of Albury City, Balranald, Berrigan, Conargo, Corowa, Deniliquin, Greater Hume, Murray, Wakool, and Wentworth. The Draft MR Strategy is currently in draft form and has not been updated since 2009.

The Draft MR Strategy addresses a population increase of 8000 by 2036 and a likely change in the demographic profile indicating an ageing population and smaller households. This will require an additional 13,900 new dwellings and 3100 new jobs. The Draft MR Strategy is intended to link to the NSW State Infrastructure Strategy, which will ensure land use planning supports and facilitates the provision of key infrastructure in the region.

# **Relevance to Project**

The Draft MR Strategy supports the development of a more accessible and integrated transport system as proposed by the Echuca-Moama Bridge Project.

# NSW 2021: A Plan to Make NSW Number One (2011)

'NSW 2021' is a 10 year plan to rebuild the economy, provide quality services, renovate infrastructure, restore government accountability, and strengthen the local environment and communities. Five Strategies are outlined, including a '*Renovate Infrastructure*' which aims to 'build the infrastructure that makes a difference to both our economy and people's lives'.

To complement NSW 2021 and existing long term initiatives, Regional Actions Plans identify immediate actions the NSW Government will prioritise over the next few years. Moama is located within the Murray-Lower Darling Regional Action plan area. The Murray-Lower Darling Regional Action Plan focuses on rebuilding the local economy, returning quality services, renovating infrastructure and strengthening the communities in the Murray-Lower Darling region. A key priority identified by communities includes a region that is well connected, with increased access to transport services, road upgrades to support the critical logistics industry and new technologies.

# **Relevance to Project**

The Echuca-Moama Bridge Project is consistent with NSW 2021 and the Regional Action Plan as it provides an upgraded transport service to the community, whilst improving connectedness within the region.

# 5.2 Local

The Project is proposed to be introduced to the Campaspe Planning Scheme by means of a Public Acquisition Overlay (PAO) and to the Murray Local Environment Plan via a road reservation which would be of sufficient width to accommodate a four lane, two-way road. The SIA, together with other specialist studies, would inform the format of the proposed PAO for the second Murray River crossing in the Campaspe Planning Scheme and the road reservation in the Murray Local Environment Plan.

### 5.2.1 Shire of Campaspe

# 5.2.1.1 Local Planning Policy Framework

The Local Planning Policy Framework (LPPF) sets a local and regional strategic policy context consistent with the SPPF (discussed earlier), for a municipality. It comprises the Municipal Strategic Statement (MSS) and specific local planning policies. Those relevant to the Project are discussed below.

### Clause 21 Municipal Strategic Statement

The MSS specifically aims to provide direction for the environmental, social and physical development of the Shire of Campaspe. The MSS is derived from the Shire of Campaspe Integrated Strategy Plan (April 1996) and from Campaspe 2020 – Building a Better Future, both of which provide an analysis of the issues and trends impacting on land use planning in the Shire. The MSS outlines the planning objectives, strategies and implementation mechanisms for the Shire and was last updated in 2006.

### Clause 21.01 Municipal Profile

The Shire of Campaspe is located in north central Victoria and covers an area of approximately 4,500 km2 and 2% of the state. Its southern border is bounded by State Forest, with its northern border aligned with the Murray and Goulburn Rivers. It which is situated 205 kilometres directly north of Melbourne.

The estimated resident population of the Shire in June 2011 was 36,855. Functionally, Echuca interacts with its New South Wales' counterpart, Moama. The current population of Echuca - Moama is nearly 16,000 persons.

Tourism is an economic and employment growth sector for the Shire and is an important aspect of the social, economic and physical make-up of the Shire. The key tourism assets of the Shire are based on the Murray River and include the Port of Echuca, River Boats, Native Forests, Historic Buildings, the Kyabram Fauna Park and local tourist attractions.

# Clause 21.02 Key Influences

The Clause identifies key land use planning consideration for the municipality, including settlement, the environment and economic development. The Clause also outlines key influences on these land use considerations including population growth, environmental and heritage values and commercial, tourism and industrial growth.

# Clause 21.03 Vision Statement

The residents of Campaspe value the lifestyle and opportunities offered to them within the region. The wellbeing and social health of the community is important to the Shire. The community values Echuca as a safe, healthy place to live and work, and for its social networks, support services, and the opportunity for residents to participate in decisions affecting the community, including planned infrastructure.

# Clause 21.04 Objectives – Strategies – Implementation

### Clause 21.04-1 Settlement

This Clause highlights the Shire of Campaspe's commitment to improving urban environments to encourage community wellbeing and to improve the health of residents. Residential areas within the Shire are provided with a range of health, educational, recreational, cultural and entertainment options in order to meet the social needs for all ages and gender groups.

Echuca is the largest centre in the Shire with a population of approximately 12,280. Population projections for the combined Echuca-Moama area are in excess of 20,000 citizens by 2020. Development opportunities and constraints within the Echuca area are identified below:

- Future growth in Echuca will be to the west as land to the east, north, south, south-east and south-west is constrained
- Future residential development in greenfield areas will be at a higher density than that over the past several decades
- Infill developments will be encouraged in existing urban areas
- The Port of Echuca Heritage Precinct and the railway corridor offer significant opportunities for public and private investment. The Heritage Precinct Master Plan and Tourism Investment Strategy are to be used to guide future development in the area.

# Clause 21.04-2 Environment

This Clause outlines Campaspe's objective to provide leadership, resources and services to secure a sustainable environment that balances rural, urban, social, recreational, economic and environmental demands. Relevant policies within this Clause relate to the protection of water, biodiversity, salinity, flooding, heritage, the built environment and the Murray River Corridor.

Agriculture and tourism underpin the Shire's economy. Campaspe lies within one of Australia's most productive and developed agricultural regions. Agriculture is expected to remain the economic driving force of the Shire up to 2020.

Tourism is an economic and employment growth sector for the Shire and is an important aspect of the social, economic and physical make-up of the Shire. Key tourism assets are based on the Murray River and around the Port of Echuca. The estimated annual turnover associated with the tourism industry is \$100 million, with approximately 1500 people employed in the tourism industry.

Planning for growth must ensure that new development is integrated and does not fragment existing commercial centres. Development of commercial and retail activity in highly accessible locations must also consider the effects on traffic, access, fragmentation or elongation of entrances to towns.

The forecast growth of Echuca-Moama will increase demand for an additional road crossing of the Murray River to the north west of the town centre as an extension of the Murray Valley Highway.

#### Clause 21.04-4 Town Structure Plans

The objective of this Clause is to provide an indicative plan of the future desired growth patterns in and surrounding the Echuca Urban Growth Area. The Echuca Town Structure Plan – Echuca Central identifies an Investigation Area for a Second River Crossing in the vicinity of Warren Street.

#### Notable Clause 22 Local Planning Policies

Local policies have been developed for some specific issues facing the Shire which are the subject of frequent planning permit applications.

### Clause 22.02 Heritage Policy and 22.03 Port of Echuca Heritage Policy

The Heritage Policies contributes to the protection and enhancement of heritage places including buildings, trees and structures of natural or cultural significance for present and future generations in the Shire of Campaspe.

The Heritage Policy identifies a number of important precincts in Echuca that represent significant cultural heritage assets. These include the "Old Echuca Township Precinct and the Echuca North Residential Precinct which was developed in conjunction with the river trade and the port of Echuca. The Port of Echuca Heritage policy aims to create the Port of Echuca as a nationally significant heritage tourism precinct and protect the heritage character and integrity of the historic port and environs."

The Shire of Campaspe aims to retain and enhance the character of the historic port and surrounding township area. Development proposals are discouraged if they impinge upon existing significant view lines towards and from the Port of Echuca area, including the view towards the forested area opposite the wharf, and the view line from the existing Iron Bridge and towards the Port. The aesthetic, historic and environmental values of the Campaspe River and public land to its west are to be conserved with links between the Campaspe and Murray Rivers to be encouraged and enhanced. Potential impacts on view lines are being assessed through a Visual Impact Assessment.

# Summary of Local Policy / Relevance to Project

Local policies highlight that:

- The Shire of Campaspe is committed to maintaining and enhancing the social wellbeing of the community and is committed to the process of consultation as an integral part of project evaluation.
- Future development in Echuca will be in the west, as well as infill development. The proposed alignment must consider access issues relating to future growth areas.
- The agriculture and tourism industries will continue to grow.
- Fragmentation and traffic issues must be avoided. The proposed alignment is seen as an opportunity to resolve traffic issues.
- The proposed alignment would need to address potential off-site impacts resulting from constructing a bridge within a floodplain.
- The alignment would need to minimise the impact on significant cultural heritage sites, heritage assets, significant trees and vistas.
- Road upgrades should aim to improve traffic safety and maintain visual amenity.
- The Echuca-Moama Bridge Project would provide improved access for the communities of both towns, connecting users with community, commercial, recreational and employment activities.

# 5.2.1.2 Shire of Campaspe Council Plan (2013-2017) (Council Plan)

The Shire of Campaspe Council Plan 2013-2017 provides strategic direction for development within the Shire. The Plan recognises the importance on ongoing consultation with the community.

The Council Plan recognises that a priority for local government is 'to create conditions for an economically, environmentally and socially healthy society'. A range of Community Outcomes are outlined, each with a set of priorities for 2013-17.

For the 'Prosperity' Community Outcome, the Council aim is to be an advocate for infrastructure that support business establishment and development and to identify, scope and pursue the next major projects to drive further economic growth and sustainability for our region.

For the 'Place' Community Outcome, a strategic objective is that transport networks enable easy access to localities, which includes being an advocate for transport links between local and regional destinations.

# 5.2.1.3 Environment Strategy (2012-2015)

The development of the Environment Strategy is one of several actions outlined in the previous Council Plan 2009-2013 which addresses strategic directions for the natural environment. The specific objectives of the Environment Strategy are to:

- Identify Council's legal obligations with respect to environmental management
- Identify other organisations with responsibility for environmental management that Council could partner with to achieve mutual benefit
- Document Council's other non-legal requirements for environmental management, including any voluntary commitments made
- Provide a commentary of the role Council does and should play in each area of environmental management.

Clause 8.3 requires Council to 'plan to ensure land use is compatible with land capability and minimise the environmental impacts of urban and rural development'

# 5.2.1.4 Arts and Culture Strategic Plan (2004-2014) (Arts Plan)

The Arts and Culture Strategic Plan identifies all art and cultural offerings within the Shire, and proposes options to fill gaps where community needs are not being met. Two major projects proposed in the Arts Plan are the construction of a new visual arts space in Echuca including relocation of the Echuca Library, and an increase in arts activities in the Port of Echuca area including street theatre, a children's museum and youth workshops. This is likely to increase travel demand to and from central Echuca.

# 5.2.1.5 Access and Inclusion Plan (2010-2013) (Access Plan)

The Access and Inclusion Plan 2010-2013 sets out strategies to improve access to Shire facilities for disabled persons. The Access Plan also aims to improve community inclusiveness through changing community attitudes. Key actions to improve access to all Council facilities and open spaces include to:

- Ensure that any future planning and development of infrastructure especially recreation, sporting and playground facilities includes "access for all" principles
- Develop an accessible footpath strategy for creating walking networks linking key town sites with community facilities
- Work with the Road Services Manager and VicRoads to identify safe pedestrian crossing locations for major arterial routes.

# 5.2.1.6 Campaspe Walking and Cycling Strategy (2007) (Walking Strategy)

The purpose of the Campaspe Walking and Cycling Strategy is 'to identify a direction and opportunities for Council for the future provision of walking and cycling paths and trails in the Shire of Campaspe, after consideration of local and regional issues.'

The Walking Strategy has been developed in response to the Shire of Campaspe's recognition of the health, fitness, and social benefits of walking and cycling. The Walking Strategy aims to increase participation in these activities by both residents and visitors to the Shire. The Walking Strategy aims to encourage walking and cycling to work, recreational offerings, schools and shops, and as a tourism activity. To support this aim the Shire will promote existing paths and develop new safe and well-designed paths.

The existing network of paths includes Scenic Drive in Victoria Park Reserve and along the Campaspe River. The Walking Strategy proposes a crossing point over the Murray Valley Highway at Butcher Street to connect to the future urban growth areas in the west of Echuca. Excerpts from the Walking Strategy are included at Appendix A.

# 5.2.1.7 Echuca Moama Recreation Plan (2006) (Recreation Plan)

The Echuca Moama Recreation Plan was prepared as a joint initiative of the Shire of Campaspe Council (Vic) and the Murray Shire Council (NSW). Through the Recreation Plan, the two Shires aim to improve efficiency and coordination to increase the range and quality of recreational facilities available to their residents. The Recreation Plan recognises the high value placed on open space, sporting and recreation facilities by residents.

The Recreation Plan recommends that both Councils consider the inclusion of both active and passive recreation facilities when assessing future upgrades for larger parks. The Recreation

Plan projects an increase in passive recreation requirements within the Shire due to forecasted population growth and an ageing population with an increasing preference for passive recreational facilities.

Improved access to recreational offerings is another key objective of the Recreation Plan, including the recommendation that strong linear links be developed between recreational offerings and those areas within the Shire underprovided with parks and open space. Improving access to natural areas such as Victoria Park and Scenic Drive has also been recommended, however a method for access improvements has not been described in the Recreation Plan.

# 5.2.1.8 Campaspe Local Floodplain Development Plan Precinct of Echuca (2010) (Floodplain Plan)

The Floodplain Plan applies to the floodplains of Echuca. It has been prepared to provide a performance-based approach for decision making that reflects local issues and best practice, including flood risk assessment, in floodplain management.

Echuca experiences flooding from two rivers, with floods occurring from the western side of the Campaspe River and the eastern side of the Murray River. Flood impacts in the area are significant, resulting in road closures, loss of access for residents, disruption to schools, property isolation, and risks to emergency personnel during sand bagging and evacuation operations and damage to buildings constructed below flood level. Therefore any works/ new earthworks must not obstruct the natural flow paths or drainage lines. A significant portion of the Project Area is subject to inundation.

# 5.2.1.9 Draft Campaspe Open Space Strategy (2014) (Open Space Strategy)

The Open Space Strategy is a long term planning document that provides the policy and strategy to enable Council to make decisions about how open space is used, developed and managed across the municipality. It aligns with the broad directions of the Shire of Campaspe Council Plan and the Municipal Health and Wellbeing Plan by providing recommendations aimed at creating and managing inclusive spaces that support the social, physical and economic wellbeing of Campaspe's communities.

The Open Space Strategy outlines the strategic priorities and actions that are necessary to continue to create, protect and enhance quality open space across the municipality over the next 10-15 years. The Council's Vision set out within the strategy is to;

... work together to build our open space system in ways that celebrate our strengths, supports biodiversity and improves health and wellbeing for our community now, and in the future. We value the unique nature of our open space including rivers, trails, pristine bushland, parks and sporting spaces.

The Open Space Strategy relies not only on Council resources but also recognises the need to develop meaningful partnerships with the community and other government departments that result in a sharing of resources and a sustainable open space system that ensures that the Shire of Campaspe reflects the Council's vision of creating a vibrant place to live, grow and visit, with a thriving, diverse and healthy lifestyle.

# 5.2.1.10 Draft Victoria Park and Environs Master Plan (2014) (Draft Victoria Park Master Plan)

Victoria Park and its surrounds are the key sporting and recreation precinct for Echuca and Moama residents. Victoria Park is separated into two areas, the Sports Precinct and Parkland. Victoria Park includes a range of facilities including tennis, football, cricket and netball grounds as well as a boat ramp and water skiing events. Scenic Drive abuts the Park and is a natural bushland area used for informal recreation and nature-based activities, picnicking, walking and cycling. The recreation precinct is also home to regional and State based events.

The Draft Victoria Park Master Plan was prepared in response to planning issues impacting upon a previously developed Victoria Park Master Plan, endorsed by the Council in 2006 (refer to Appendix B). One of the issues was the planning study being undertaken by VicRoads to assess the feasibility of the Mid-West Option for the planned second crossing of the Murray River. The Draft Victoria Park Master Plan planning process has enabled the Shire of Campaspe Council, in conjunction with existing user groups and other relevant stakeholders, to jointly assess the impact and the opportunities for Victoria Park from this major infrastructure project for the town.

The Draft Victoria Park Master Plan establishes a long-term "Vision" for Victoria Park and the surrounding environs with a major issue considered during the planning process being to determine a new location for the six lawn tennis courts that would be impacted by the Project. The Draft Victoria Park Master Plan shows how these courts can be relocated to value-add to the future development of the Echuca Lawn Tennis Club. It is expected that the Draft Victoria Park Master Plan would be finalised once an alignment has been approved.

# 5.2.1.11 Echuca Housing Strategy (2011) (Housing Strategy)

The Housing Strategy was implemented by way of Planning Scheme Amendment C86 to the Campaspe Planning Scheme in April 2014. The Echuca Housing Strategy outlines the Council's approach to housing delivery and growth in and around the Echuca township. The Strategy contains provisions for land supply in excess of the next 40 years.

The Echuca Housing Strategy identified that there were two key approaches to meeting future needs. These are new Greenfield residential expansion in Echuca West to the west of the Northern Highway, and infill development and regeneration within selected precincts in the established areas of Echuca.

The Echuca Housing Strategy has also outlined specific objectives and strategies to promote liveability and sustainability in future developments in Echuca (and elsewhere in the Shire).

# 5.2.1.12 Echuca South East Industrial & Commercial Growth Corridor Land Strategy (2011)

This Strategy was implemented by way of Planning Scheme Amendment C86 to the Campaspe Planning Scheme in April 2014. The Echuca South East Industrial and Commercial Growth Corridor Land Strategy identifies that Echuca currently has about 125 hectares of vacant land zoned for industrial purposes which is likely to be sufficient zoned land available to satisfy demand associated with projected population growth for the Shire to at least 2026.

The Strategy provides a vision for the future development of this industrial precinct which is located approximately 1.8 kilometres to the south east of the Echuca town centre. The Strategy has been prepared in response to the emergence of a number of complex land use planning and infrastructure issues in the corridor, a key objective being to 'consider transport needs for the movement of people, materials and products to, from and through the south east growth corridor by road and rail'.

# Shire of Campaspe Summary / Relevance to Project

The proposed Echuca-Moama Bridge Project would support Council objectives to be an advocate for infrastructure that support business establishment and development and to ensure

# Shire of Campaspe Summary / Relevance to Project

that transport networks enable easy access to localities, improving transport links between local and regional destinations.

Other local plans and policies highlight:

- The planning for, and location of, the proposed second Murray River crossing needs to have regard to improving social connectedness within the Echuca community and other communities. Regard must also be given to avoiding impacts on physical and community infrastructure.
- The planning for, and location of, the proposed second Murray River crossing is likely to support the future growth of and economic development within the Echuca-Moama township.
- The planning for, and provision of, the proposed second Murray River crossing would support integrated planning for recreational and sporting facilities in both communities so that there is improved access to specialised facilities located in Victoria Park, Echuca and the Moama Recreation Reserve respectively.
- The planning for and location of the approach road to the second Murray River crossing through Victoria Park should have regard to the integration of pedestrian and cycle routes through the area.
- The planning for and location of the approach road to the second Murray River crossing through part of Victoria Park, and the Bridge itself, would need to have regard to ensuring access for disabled persons.
- The issue of appropriately locating and integrating the proposed alignment with the environs of the sports precinct and consultation with users of Victoria Park is an important element of the SIA.

# 5.2.2 Murray Shire Council

# 5.2.2.1 Murray Shire Strategic Land Use Plan, 2010-2030 (Murray Land Use Plan)

The Murray Shire Strategic Land Use Plan sets out the Council's vision for land use planning which is to ensure that

...the Shire's natural environment is carefully managed and that its natural and built assets are protected from inappropriate rural and urban development that would prejudice the agricultural, heritage and urban attributes of the Shire.

This Plan describes future projected land uses within the Shire based upon trends such as population, economy and the available supply of rural land. For Moama in particular, high population growth has been noted. Future growth within Moama is expected to occur through residential development in West Moama as East Moama around the Meninya Street area reaches full capacity. The Murray Land Use Plan also recognises that many community facilities are absent from Moama but are located in and shared with Echuca, and vice versa. Community facilities of interest noted include Rich River Golf Club and Moama Bowling Club, which are extensively used by residents in both communities. The Moama Recreation Reserve in Perricoota Road is another key community facility, providing facilities for numerous sports.

The Plan identifies the fragmented urban form created in Moama by past haphazard development and which has increased the boundary of the town to become far broader than necessary to accommodate the current population. Future residential development is therefore to be contained within the border of the town to 'fill in the gaps'. Land uses such as rural residential are nominated as not suitable for the centre of town due to their consumptive land characteristics.

The Plan also describes preferred locations for future commercial development. Land surrounding the recently constructed Woolworths Supermarket at the corner of the Cobb Highway and Perricoota Road is identified as becoming a new commercial focus within Moama, moving away from the main street of Meninya Street. A secondary and smaller commercial centre may be required in Moama's west to meet longer term population growth needs.

Industrial land uses are identified in three key locations including to the east near the railway line, to the north along the Cobb Highway and at Hillside Lane on the outskirts of the town. Future industrial land uses are proposed to be located along the Cobb Highway where possible due to its ease of accessibility for vehicles.

# 5.2.2.2 Murray Local Environment Plan 2011 (Murray Environment Plan)

The Murray Environment Plan is a planning document that determines how property or land can be used and/or developed. As the Project does not require development consent, these provisions do not apply to the Project, however the provisions are an important consideration for the preparation REF.

Under the Murray Environment Plan, the Project area is located within a Flood Planning Area and is predominantly within the 'Zone E3 Environmental Management' Zone. The Project site is subject to both Key Fish Habitat and Terrestrial Biodiversity overlays, but is not affected by any Heritage or Urban Release overlays.

The Objectives of Zone E3 are 'to protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values' and 'to provide for a limited range of development that does not have an adverse effect on those values'.

Clause 7.4 sets out requirements for development on river front areas, including 'that any historic, scientific, cultural, social archaeological, architectural, natural or aesthetic significance of the land on which the development is to be carried out and of surrounding land is to be maintained' and 'that continuous public access, and opportunities to provide continuous public access, along the river front and to the river concerned are not likely to be compromised'.

### 5.2.2.3 Moama Recreation Reserve Plan of Management (2008)

The Moama Recreation Reserve is located in the township of Moama is one of the key recreation and sporting venues within the region. The Reserve is Crown Land situated northwest of Moama township, bounded by Perricoota Road to the south and Kirchhofer Street and Nicholas Drive to the north. It also incorporates the Moama and Echuca Community Botanic Gardens.

The Moama Recreation Reserve Plan of Management provides a framework for the effective long-term management, use and development of the Moama Recreation Reserve. It also establishes directions for planning, resource management and maintenance of this public land. The planning process has enabled Council, in partnership with the user groups, the Rich River Golf Club, local residents and other stakeholders, to establish a new "vision" for the Reserve.

The Plan includes a Moama Recreation Reserve Master Plan a key direction of which is to provide 'a diverse combination of sporting and passive recreation facilities and spaces catering for local needs but which also have the capacity to attract Regional interest and events.'

The progressive implementation of the Moama Recreation Reserve Master Plan will ensure that the Moama Recreation Reserve continues to provide user groups, residents and visitors with a range of sports and recreation facilities that are easily accessed, relevant and accommodate future needs.

#### 5.2.2.4 Moama North West Master Plan, 2009 (NSW Master Plan)

The NSW Master Plan is a strategic guide used by the Murray Shire in order to provide strategic direction for the future use and development of the area, which is predicted to experience rapid growth in the 25 years to 2031. It identifies a range of strategic land use issues affecting the area, and seeks to provide certainty for residents and landholders on the future planning and development of the study area. An Indicative layout plan sets out the study boundary, zones and areas of potential development- the Plan area is north-west of the area impacted by the roadwork's associated with the Project though additional traffic would be directed through the NSW Master Plan area as a result of the new bridge location.

The NSW Master Plan proposes a local activity centre at the corner of Martin Road and Twenty Four Lane and recommends an increased density of development around the centre as well as the provision of public transport routes and stops.

A key aim of the Master Plan is to create a road hierarchy which is internally and externally connected and allows for local access to open space, schools, community services and activity centres. The NSW Master Plan notes that the current Murray River crossing at the Cobb Highway is operating beyond its capacity, and supports the future construction of the proposed second crossing.

The NSW Master Plan also proposes an open space network midway between Perricoota Road and Martin Street, creating a pedestrian and cyclist link adjacent to Keily Road and crossing over the Cobb Highway.

# Murray Shire Summary / Relevance to Project

The Murray Shire Strategic Land Use Plan and its Local Environment Plan set out the Council's vision for land use planning with a strong emphasis on ensuring that the Shire's natural environment is carefully managed, and identifying and protecting the Murray's natural assets, which would be impacted by the Project. Those areas with special ecological, scientific, cultural or aesthetic values should be protected and managed, and that access to the riverside must be maintained.

The future growth of the north-west of Moama and the proposed second Murray River crossing would improve access between this north west area of Moama and the many community and business facilities and employment opportunities located in central Echuca as well as to the wider region. It would also increase accessibility to the Moama Recreation Reserve, which could enhance its ability to become a regional sporting and community events facility.

Murray Shire Council aims to create a road hierarchy which is well connected and allows for local access to open space, schools, community services and activity centres.

# 6.0 Existing Conditions

# 6.1 **Population Characteristics and Trends**

This section provides an overview of size and character of the population of the study area. Demographic data and are presented for the urban centres of Echuca and Moama, the Shire of Campaspe, Murray Shire and Regional Victoria and non-metropolitan NSW.

# 6.1.1 Population Size and Growth

Historical and projected population levels for areas of interest are shown in Table 2. As the table shows, the population of Echuca grew by 839 people between 2006 and 2011, or at a rate of 1.3% per annum. In contrast, the population of the Shire of Campaspe as a whole declined marginally across the same period. Echuca is projected to continue its role as the major growth centre in the Shire of Campaspe to 2031. To illustrate, the population of Echuca is projected to grow by approximately 2,400 people to 2031, comprising almost 60% of all growth projected for the Shire of Campaspe over this period.

The population of Moama also increased between 2006 and 2011 by approximately 510 people or at a rate of 2.0% per annum. Growth in Moama in this period comprised a large proportion (81%) of all growth across Murray Shire. No population forecast is available for Moama. However, the population of Murray Shire is projected to grow by approximately 1,500 residents to 2031, or at a rate of 1.0% per annum.

	Echuca	Campaspe (S)	Regional Vic	Moama	Murray	Non Metro NSW
2006	12,994	36,969	1,339,833	4,875	6,552	2,788,564
2011	13,833	36,855	1,368,451	5,385	7,200	2,932,350
2031	16,259	40,992	1,742,175	-	8,750	3,336,600
Ave Growth 2006- 11	1.3%	-0.1%	0.4%	2.0%	1.9%	1.0%
Ave Growth 2011- 2031	0.8%	0.5%	1.2%	-	1.0%	0.6%

#### Table 2 Population Growth – Selected Areas

(Source: ABS cat no. 3218 (2014) VIF 2014; Planning and Environment, NSW (2014); i.d. Consulting 2014)

# 6.1.2 Age Structure

Table 3 shows the age structure and median age for the areas of interest. As the table shows, the population of Echuca was substantially younger than the population of Moama at the time of the last Census. To illustrate, the median age of the Moama population was 48 compared with 40 for Echuca and 41 for Regional Victoria and Regional NSW. In Moama, 27.5% of the population were aged 65 or more at the time of the last Census compared with 18.8% of Echuca's population.

	Echuca	Campaspe (S)	Regional Vic	Moama	Murray (S)	Regional NSW
Median Age	40	42	41	48	47	41
0-4 years	6.8%	6.1%	6.3%	5.3%	4.9%	6.3%
5-14 years	14.0%	13.8%	12.9%	11.2%	12.1%	13.1%
15-24 years	11.8%	11.5%	12.3%	9.3%	9.8%	12.3%
25-54 years	36.8%	35.8%	37.4%	32.0%	33.4%	37.1%
55-64 years	11.8%	13.3%	13.5%	14.6%	15.1%	13.3%
65 years +	18.8%	19.5%	17.6%	27.5%	24.6%	18.0%

#### Table 3 Age Profile

(Source: Australian Bureau of Statistics (ABS), 2011)

# 6.1.3 Income, Employment and Training

Table 4 shows data relating to income, employment and training for selected areas. As the table shows, median personal and household income was somewhat lower in Moama when compared with Echuca and Regional and Victoria and Regional NSW. To illustrate, median household income in Echuca was \$906 per week compared with \$834 per week in Moama. Notwithstanding, the spread of incomes in both urban centres was similar in 2011, and there were not notably more or less persons on low income in Moama when compared with Echuca.

Educational attainment was slightly higher in Echuca at the time of the last Census when compared with Moama. To illustrate, 10.3% of Echuca residents had obtained a bachelor's degree compared with 8.5% for Moama. Education levels in both Echuca and Moama were slightly lower than observed for Regional Victoria and Regional NSW.

	Echuca	Campaspe (S)	Regional Vic	Moama	Murray (S)	Regional NSW
Income (weekly)		(3)				
Median Personal Income	\$505	\$469	\$493	\$466	\$463	\$490
Median Household Income	\$906	\$886	\$945	\$834	\$845	\$961
Negative/Nil income	1.3%	1.5%	1.3%	0.9%	1.9%	1.3%
\$1-\$399	15.8%	16.2%	15.6%	16.0%	15.7%	15.5%
\$400-\$799	27.4%	28.0%	26.1%	31.5%	30.8%	25.7%
\$800-\$1,499	30.0%	29.7%	28.7%	27.9%	28.1%	26.9%
\$1,500-\$2,999	23.0%	22.2%	24.4%	20.0%	20.6%	25.0%
\$3,000+	3.8%	3.8%	5.2%	4.6%	4.8%	6.9%
	Em	ployment a	nd Training			
Unemployment Rate	4.7%	4.5%	5.2%	4.7%	4.6%	6.1%
Labour Force Participation	57.3%	57.3%	58.2%	52.4%	55.5%	56.4%
Completed Year 12	34.6%	31.4%	40.5%	33.0%	32.6%	39.1%
Bachelor Degree or				8.5%	8.8%	11.4%

9.5%

11.8%

#### Table 4 Income, Employment and Training

Source: ABS Census 2011

Higher

10.3%

Table 5 shows data relating to industry of employment for selected areas. As the table shows, 'agriculture, forestry and fishing' was a significant source of employment for the communities of the Shire of Campaspe and Murray Shire, being the source of 12.9% and 14% of all employment respectively. However, residents of Echuca and Moama relied more heavily on urban based employment opportunities, such as those found in the manufacturing and construction industries and in retail trade.

#### Table 5 Industry of Employment

	Echuca	Campaspe (S)	Regional Vic	Moama	Murray (S)	Regional NSW
Manufacturing	13.4%	14.5%	10.4%	11.4%	9.5%	8.3%
Construction	9.3%	7.9%	8.9%	8.8%	8.3%	7.9%
Retail trade	13.7%	11.4%	11.6%	14.4%	11.8%	11.4%
Accommodation/ food services	11.0%	6.6%	6.8%	13.6%	11.9%	7.7%
Transport, postal, warehousing	3.2%	3.9%	4.1%	3.7%	3.6%	4.2%
Education and training	7.6%	6.8%	8.2%	5.8%	6.0%	8.6%
Public administration and safety	4.7%	3.8%	6.1%	5.2%	4.5%	7.2%
Health care/social assistance	13.5%	12.1%	13.1%	11.2%	9.5%	13.0%
Agriculture, forestry and fishing	2.0%	12.9%	7.8%	3.5%	14.0%	5.8%
Other	21.5%	20.0%	23.0%	22.3%	21.0%	26.0%

Source: ABS Census 2011

# 6.1.4 Households and Families

Table 6 shows the type of households and families living in the areas of interest. As the table shows, average household size was 2.4 in Echuca compared with 2.2 in Moama. This reflects the presence of a relatively large proportion of families without children (37.5%) in Moama compared with 28.7% in Echuca, consistent with an older age profile in Moama and the presence of substantial numbers of 'empty nesters'.

	Echuca	Campaspe (S)	Regional Vic	Moama	Murray (S)	Regional NSW
Households	-			-	-	
Household Size	2.4	2.4	2.4	2.2	2.3	2.4
Lone Person	28.2%	26.7%	27.7%	29.1%	27.3%	26.5%
Group	3.4%	2.4%	3.0%	2.9%	2.2%	3.1%
Family	68.4%	70.9%	69.3%	68.0%	70.5%	70.4%
Families						
Couple no children	28.7%	31.3%	31.3%	37.5%	37.4%	29.4%
Couple with children	25.6%	27.8%	27.8%	21.4%	24.3%	27.9%
One parent family	13.1%	11.1%	11.1%	8.4%	8.1%	12.1%
Other Family	1.0%	0.8%	0.8%	0.6%	0.7%	0.9%

#### **Table 6 Households and Families**

Source: ABS Census 2011

# 6.1.5 Tenure

Table 7 shows the tenure profile of the areas of interest. As the table shows, owner occupiers are the most common tenure group in Echuca and Moama. However, renters make up a higher proportion of households in Echuca than Moama and the other comparison areas. This in part reflects the relatively high level of provision of public/social housing in Echuca, which comprises 8.9% of all occupied dwellings compared with 1.7% in Moama and 4.2% for Regional Victoria.

	Echuca	Campaspe (S)	Regional Vic	Moama	Murray (S)	Regional NSW
Fully owned	34.2%	40.2%	39.6%	43.6%	44.4%	38.8%
Being purchased	31.0%	33.8%	34.3%	27.6%	29.3%	31.9%
Rented	33.6%	25.2%	25.2%	26.2%	24.1%	28.4%
- Public/Social	8.9%	5.0%	4.2%	1.7%	2.6%	5.1%
Other Tenure	1.2%	0.9%	0.8%	2.6%	2.3%	0.9%

#### Table 7 Tenure

Source: ABS Census 2011

#### 6.1.6 Travel to Work

Table 8 shows the location of work for residents of Campaspe and Murray Shires at the time of last Census. There is a greater flow of workers from Murray Shire into Victoria and the Shire of Campaspe. As the table shows, 6.1% of the Shire of Campaspe's workforce (942 people) worked in NSW, the majority of whom (743) found work in Murray Shire. To illustrate, at the time of the last Census 46.4% of Murray Shire's workforce (1,381 people) worked in Victoria, the majority of whom (1,196) found work in the Shire of Campaspe. Residents of both Shires who move across the state border to access work make regular use of the existing Echuca Bridge.

#### **Table 8 Place of Work**

	Place of Work					
Place of Usual	Victoria		NSW		Other	<b>T</b> = + = 1
Residence	Campaspe	Total	Murray	Total	State	Total
Campaspe (S)	11,219	14,422	743	942	97	15,461
	72.6%	93.3%	4.8%	6.1%	0.6%	100%
Murray (A)	1,196	1,381	1,133	1,576	17	2,974
	40.2%	46.4%	38.1%	53.0%	0.6%	100.0%

Source: ABS Census 2011

Table 9 shows data relating to the mode of travel to work of residents of the selected areas. As the table shows, a large proportion of residents of each of the areas of interest travel to work in a private vehicle, either as the driver or a passenger. In both Echuca and Moama approximately 86-87% of people travel to work using a car. When other vehicle types are included (such as trucks and taxis) the proportion of Echuca and Moama residents who rely on the road network to access employment is 88-89%.

	Echuca	Campasp e (S)	Regional Vic	Moama	Murray (S)	Regional NSW
Car - as driver	79.6%	73.1%	75.1%	80.5%	73.5%	75.4%
Car - as passenger	7.1%	5.8%	6.2%	5.5%	5.1%	6.9%
Train	0.2%	0.1%	1.5%	0.2%	0.1%	0.9%
Truck	1.0%	1.4%	1.1%	0.9%	1.1%	1.8%
Walked only	4.6%	6.3%	5.2%	4.6%	5.2%	4.7%
Bus	0.5%	0.3%	0.9%	0.7%	0.4%	1.1%
Motorbike	0.4%	1.0%	0.5%	0.2%	0.6%	0.8%
Bicycle	1.5%	1.4%	1.0%	1.5%	1.0%	0.8%
Тахі	0.4%	0.2%	0.2%	0.2%	0.1%	0.2%
Tram or Ferry	0.1%	0.1%	0.1%	0.2%	0.2%	0.0%
Other	0.5%	0.7%	0.8%	0.9%	0.8%	0.7%
Worked at home	4.2%	9.7%	7.4%	4.6%	11.9%	6.6%
Not stated	1.9%	2.0%	2.0%	2.8%	2.7%	1.9%

#### Table 9 Mode of Travel to Work\*

Source: ABS Census 2011 (\*excludes did not go to work)

42

# 6.1.7 Length of Residence

Table 10 shows the proportion of residents who lived at the same address 5 years and within their current Statistical Area Level 2 (SA2) area for selected areas. As the Table shows, a lower proportion of residents of Echuca and Moama lived at their current address 5 years ago when compared with Campaspe Shire and Murray Shire respectively. However, in the case of Echuca, the discrepancy is lower when the data are analysed for the local SA2 indicating that a notable proportion of residents who moved, did so to an address within the town or surrounds rather than leaving the area.

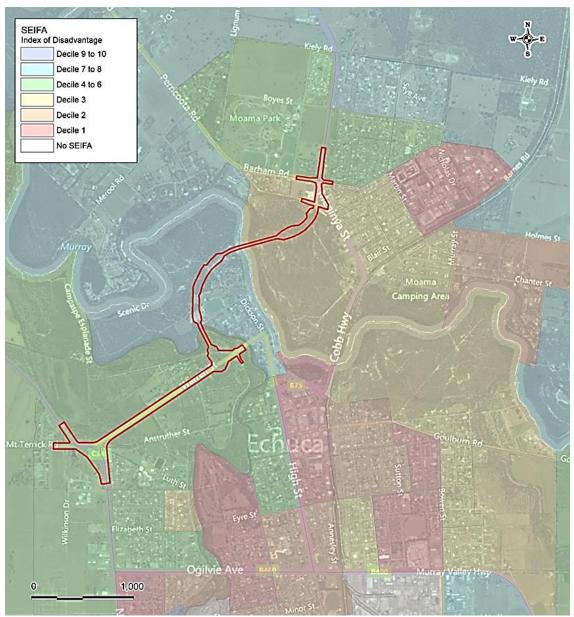
#### Table 10 Length of Residence

	Echuca	Campasp e (S)	Regional Vic	Moama	Murray (S)	Regional NSW
Same Address	54%	62%	59%	50%	57%	58%
Lived in Statistical Area Level 2	70%	75%	70%	60%	65%	69%

Socio-Economic Indexes for Areas (SEIFA) is a product developed by the Australian Bureau of Statistics (ABS) that ranks areas in Australia according to relative socio-economic advantage and disadvantage. Figure 4 shows the distribution of SEIFA Index Scores in the Study Area.

As can be seen, residential areas located around the central urban core of Echuca and Moama had lower scores (Decile 1-3) reflecting relatively high levels of disadvantage. The Mid-West Option runs to the north of the Echuca town centre via Warren Street and then passes to the west and north of residential areas around Crofton Street. These residential areas have a SEIFA Index score in Decile 4-8, signifying a moderate to highly affluent community. In Moama, the alignment passes through areas identified as Decile 3 and Decile 4-6.

#### Figure 4 SEIFA Index Map



# 6.1.9 Demographic Summary

Echuca and Moama are major population centres within the Campaspe and Murray Shires respectively. Each settlement has experienced notable population growth over the past 5 years and further growth is projected. Land will be required for residential dwellings as well as infrastructure (including road infrastructure) and community facilities to support the growing populations of each urban centre.

As the urban centres of Echuca and Moama grow and develop, the proportion of all employment provided by agricultural based employment in the Shires of Campaspe and Murray will lessen and be complemented by further development of urban based employment opportunities.

The population of Echuca is younger and comprises a greater number of families with children than Moama. The Echuca population also enjoys a slightly higher income when compared with Moama. The majority of households living in Echuca and Moama are owner occupiers. However, a higher proportion of Echuca households rent their dwelling, and there is a notable amount of public/social housing located in Echuca.

Currently, around 5% of the Shire of Campaspe's workforce travel to Murray Shire to work and approximately 40% of Murray Shire's workforce travel to the Shire of Campaspe to work. It is likely that many of these workers make regular use of the existing Echuca Bridge as part of their journey to work.

# 6.2 Community Resources

This Section describes community resources in Echuca-Moama. Community resources in Echuca and Moama have been mapped (see Figure 5 over page).

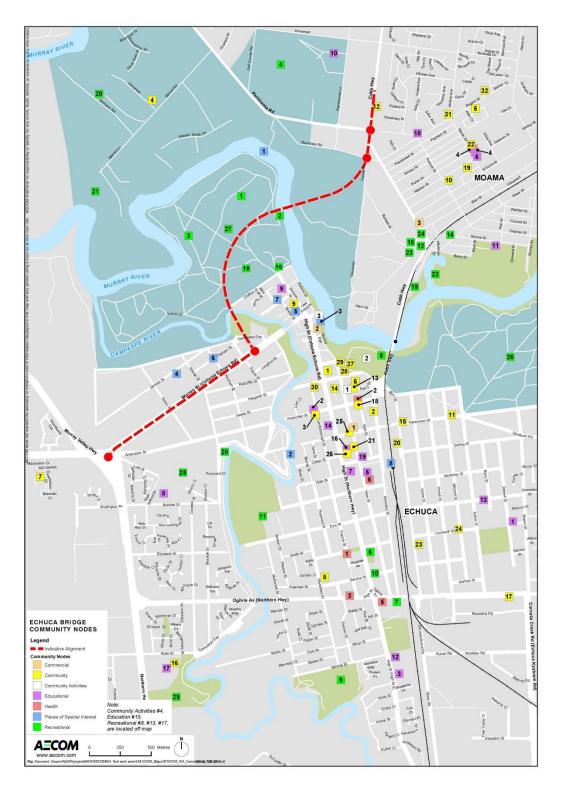
# 6.2.1 The Township of Echuca-Moama

Residents consulted as part of the 2011 and 2012 SIA processes reported that they enjoy living in Echuca-Moama because the area is quiet and peaceful and provides access to a wide range of facilities and services. Other positive features of the townships reported by residents include access to the Murray River and the friendly local community.

In the 2011 study, residents living in the Warren Street area reported that they like being close to both central Echuca and bushland. Residents in the Crofton Street area reported that they value living in a quiet area with access to good facilities.

Consultation conducted as part of this and previous SIAs indicate that the two towns are essentially seen as one interdependent urban centre by local residents. Residents make use of facilities and services located on each side of the Murray River.

# Figure 5 Community Facilities Plan



#### COMMERCIAL

- ID Name
- 1 Hare St (CBD) Echuca Retail area
- High St Echuca Retail Area 2
- 3 Meninya St Moama Retail Area

#### COMMUNITY

- ID Name
- 1 Echuca Library
- Echuca Workers and Services Club 2
- 3 Echuca Senior Citizens Centre
- 4 Moama RSL & Citizens
- 5 Allen Court Retirement Village Moama
- 6 Community Living and Respite Services Inc. Echuca
- 7 Echuca Community for the Aged
- 8 Glanville Village Echuca
- 9 **Echuca Police Station**
- 10 Moama Police Station
- 11 Echuca Fire Station
- 12 Moama Rural Fire Brigade
- 13 Catholic Presbytery
- Anglican Church of Australia 14
- 15 Churches of Christ
- 16 Echuca Community Church
- Epicentre Church 17
- 18 St Marys
- 19 St James Anglican Church
- 20 Riverland Assembly of God
- 21 Church of Jesus Christ of Latter Day Saints
- 22 Jehovah's Witnesses
- 23 Salvation Army
- 24 Seventh Day Adventists
- 25 St Andrew's Uniting Church
- 26 Paramount Theatre
- 27 Tourist & Info Centre
- 28 Civic Centre
- 29 Echuca Council Offices
- 30 Echuca Magistrates Court
- 31 Jacana Green Retirement Village
- 32 Southern Cross Care

#### **COMMUNITY ACTIVITIES**

- ID Name
- Echuca Moama Farmers Market 1
- 2 **Riverboats Music Festival**
- 3 Winter Blues Festival
- 4 Echuca Cup Carnival

#### **EDUCATIONAL**

- ID Name
- Echuca East Preschool 1
- Echuca Central Kindergarten 2
- Echuca South Community Preschool 3
- ABC Learning Centre Moama 4
- Berrimba Childcare Echuca 5
- 6 Goodstart Early Learning Centre
- 7 Campaspe Community Children's Centre
- Echuca College (Echuca High School) 8
- 9 St. Josephs College Echuca
- 10 Moama Anglican Grammar School
- Moama Public School 11
- Echuca Specialist School 12
- Echuca East Primary School 13
- 14 Echuca Primary School
- 15 Echuca West Primary S

#### HEALTH

ID Name 1 Echuca Regional Health (Echuca Hospital) 46

- Nish St Medical Practice 2
- 3 Rich River Health Group
- 4 Martin St Medical Centre, Moama
- Echuca Ambulance Station 5
- Njernda Aboriginal Health Clinic 6

#### PLACES OF SPECIAL INTEREST

#### ID Name

- 1 Murray River
- 2 Campaspe River
- Port of Echuca 3
- 4 Echuca Cemetery
- 5 Echuca Historical Society Museum
- 6 Warren St Residential Area
- 7 Crofton St Residential Area
- 8 Echuca Railway Station

#### RECREATIONAL

- ID Name
- Victoria Park Recreation Area, Echuca 1
- 2 Victoria Park Boat Ramp
- 3 Victoria Park Scenic Drive
- 4 Moama Recreation Reserve
- 5 Echuca Wildlife Reserve
- 6 Apex Park

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- 7 City of Echuca Bowls Club
- 8 Echuca Racing Club
- 9 Echuca Harness Racing Club
- Echuca War Memorial Aquatic Centre 10
- 11 The YMCA Back 9 Golf Course
- 12 Moama Outdoor Swimming Pool

Murray River Holiday Park

A Shady River Holiday Park

Merool on the Murray

Kerra bee Soundhsell

Victoria Park Reserve

Walking/Cycling Track

Horseshoe Lagoon

Moama Skate Park

Hockey Field

Rotary Park

Banyula Forest

13 Rich River Golf Club (including Rich River Bowls Club)

Moama Riverside Holiday and Tourist Park

- 14 Moama Bowls Club
- 15 Echuca Lawn Tennis Club
- 16 Echuca Holiday Park Yarraby Holiday Park

10	Lonaca	VV COL I	minuty	0011001

- Campapse College of Adult Education 16
- **River City Christian College** 17
- 18 Moama & District Preschool
- BRIT Echuca (TAFE) 19

#### 6.2.2 Community Facilities

#### Community

Community facilities within the study area include senior citizens clubs, aged care, churches, an RSL and other clubs. Echuca has a well patronised public library. The Paramount Theatre located on High Street serves as both a cinema and live theatre venue for the community. The Moama RSL club in Merool Lane is another popular community facility with a large membership drawn from local residents as well as regular visitors to the Echuca-Moama area. Police stations are located in both Echuca and Moama, with the Echuca station open 24 hours per day. Echuca has a local fire station whilst a rural fire brigade is located in Moama. An Ambulance Station operated by Ambulances Victoria is located in Echuca well to the south of the study area.

#### Educational

The Echuca-Moama area contains a number of early years facilities including kindergartens and pre-school facilities. Primary schools are available for local students in both Echuca and Moama.

Three secondary schools are located within the study area which service both Echuca and Moama residents. Residents commonly have a preference for particular secondary schools so it is common for students to reside in one town and attend school in the other town. Echuca College has recently consolidated all facilities onto a site on Butcher Street, leaving the former Echuca College site at Crofton Street vacant.

Bendigo TAFE is the sole tertiary educational institution in the area, located in new facilities in central Echuca and offering TAFE courses.

#### Echuca Regional Health

Echuca Regional Health provides a range of health services to approximately 45,000 people living in the catchment areas of the Shire of Campaspe and Murray Shire. Echuca Regional Health provides 67 acute hospital beds and a comprehensive range of services including emergency, medical, surgical, maternity, paediatric, urology, orthopaedic, ophthalmology, dental alongside chemotherapy and haemodialysis services.

Echuca Regional Health also provides an aged care service, Glanville Village, which accommodates 68 high care and five low care residential beds. Echuca Regional Health is a significant employment generator for the region (employs approximately 600 staff) and thus a driver of cross river traffic.

#### Echuca and Moama Cemeteries

Echuca Cemetery is located on Warren Street, with access off Warren Street via Homan Street. The cemetery in Moama is located between Perricoota and Boundary Roads.

### 6.2.3 Open Space/Recreation

The two major concentrations of recreation facilities in the Echuca-Moama area are Victoria Park and Moama Recreation Reserve.

#### Victoria Park

Victoria Park is the largest recreational facility in the study area and provides opportunities for both passive and active recreation. The Park comprises a formal recreation area including a football/cricket oval, 17 grass tennis courts, two netball courts, and a joint-use CFA training track. These facilities are the home to local sporting clubs including the Echuca Lawn Tennis Club, Echuca Football Netball Club, Echuca Junior Football Club and Echuca Cricket Club (see Figures 5 and 6). The Lawn Tennis Club is separately managed under a Crown Land lease.

#### Figure 6 Football Ground located in Victoria Park



In the eastern section of Victoria Park there are well-developed facilities for fire brigade training and competitions which are used by the Moama Country Fire Association and Echuca Urban Fire Brigade. This includes two training tracks with the longer featuring a subsurface water recycling and pumping system. Access will be maintained to these facilities.

To the north-west of the formal recreation area is a large bushland reserve which is bounded by the Murray River to the north and the Campaspe River to the west and south. Scenic Drive is the main walking/cycling track through the bushland area, and runs roughly parallel to the two rivers and provides a pleasant outlook of the rivers and surrounding bushlands. The bushland component of Victoria Park provides opportunities for a variety of unstructured recreational pursuits including exercising, dog walking, mountain biking and bird watching. Facilities within Victoria Park include a boat ramp and carpark, toilet blocks, picnic tables, barbeques and vehicular and informal walking tracks as well as access to various beaches along the Murray River for swimming and fishing.

A location within Victoria Park that is particularly well used is a boat ramp and car park immediately to the north of the caravan park. Water side of this carpark is a grassed area, with picnic tables (see Figure 7).



Figure 7 Picnic Tables near the boat ramp car park

Results of the 2009 survey indicated that at the time Victoria Park was a well-used recreational asset. To illustrate, 48% of those surveyed indicate that they are regular users of the Victoria Park/Scenic Drive area.

In 2012, AECOM conducted an intercept survey with 34 users of Victoria Park. Of those surveyed 88% indicated that they visit Victoria Park at least weekly. Walking and running (with or without a dog) were the most common reasons for visiting Victoria Park, although a variety of reasons were given, including cycling, to have a BBQ or picnic and launching a boat. Among the respondents, Scenic Drive was the most commonly used area of Victoria Park. The majority of people surveyed used 'All of Scenic Drive'. Other areas used by those surveyed are tracks through the central area of Victoria Park, and the boat ramp and carpark along the Murray River.

Those surveyed reported that they value the formal recreational facilities within Victoria Park such the boat ramp and tennis courts, and also the natural bushland area. Victoria Park was generally characterised as a peaceful and beautiful setting for active and passive recreation. River views from Victoria Park were referred to specifically as making an important contribution to the overall amenity of the park.

Some educational institutions in Echuca and Moama use Victoria Park extensively and have students travelling to the park during school hours.

Shire of Campaspe representatives interviewed in 2014 indicated that Victoria Park is an important recreational asset for the local community.

## Moama Recreation Reserve

Moama also has a large recreational reserve of over 45 hectares located on the northern side of Perricoota Road. This reserve contains various ovals for football codes, cricket and athletics, netball courts, the only cycling velodrome in the region, a harness racing track, a Botanic Gardens area, the Moama Sports Club and open space. The Moama Recreation Reserve is

located approximately 500 metres west of the Preferred Alignment on the northern side of the Murray River, however, it is anticipated that access to the reserve would not be directly impacted by the second crossing.

#### Moama Lions Park

This Park is a small (0.5 hectare) triangular shaped open space area with a shelter, BBQ facilities and children's playground located at the corner of Boundary Road and the Cobb Highway Moama.

#### Other recreation facilities

Both Moama and Echuca also have indoor sporting complexes including indoor basketball courts. Echuca has an indoor swimming pool which can be used year round, whereas the outdoor pool located in Moama has a limited opening season.

The two bowls clubs, in Echuca at Ogilvie Avenue and Moama at Shaw Street, are significant attractors of visitors and consequently traffic. Other recreational facilities shared between the two towns include horse racing and harness racing tracks, a public golf course and skate-park and the private Rich River Golf Course.

### 6.2.4 Caravan Parks

The Echuca Holiday Park is located in the south east corner of Victoria Park. The Echuca Holiday Park is owned by Campaspe Shire and is operated by contractors. The Echuca Holiday Park provides 273 sites in total which are a mix of cabins and powered sites. At present the Echuca Holiday Park is the only Caravan Park within the Echuca township. There are a small number of permanent residents living within the Echuca Holiday Park (six) some of whom have lived there for 10 or more years. However, the Shire of Campaspe is no longer accepting new permanent residents to the Echuca Holiday Park, the intention over time being to have no permanent residents there.

The Merool Caravan Park is located within NSW near Reflection Bend. It provides for a range of cabins, annual and camping sites and also provides a houseboat marina and a 4 lane boat ramp.

The Moama Riverside Tourist Park is located on the north bank of the Murray River and east of the Cobb Highway. It also provides a range of cabins, annual and camping sites.

### 6.2.5 Cycling Paths

There are a number of on road and off road cycling paths in Echuca and Moama. These are outlined in maps produced by Echuca Moama Tourism. In the Shire of Campaspe, one such route runs through Victoria Park and makes use of Scenic Drive (See Figure 8). An informal off road track follows parts of the southern side Campaspe River through to Warren Street. In Murray Shire, a shared use path runs along Bartlett Street and Boundary Road and provides access to the Moama Sports Precinct and beyond to 5 Mile Reserve (see Figure 9).

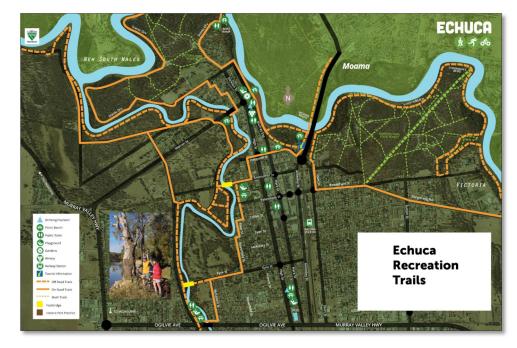
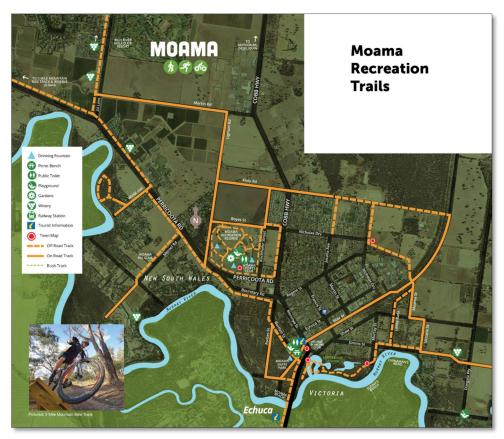


Figure 8 Bicycle paths, Echuca (Source: Echuca Moama Tourism website, 2015)

Figure 9 Bicycle paths, Moama (Source: Murray Shire Council)



# 6.2.6 Private Housing

Housing is a key community resource, and for the owners of this housing, a substantial private asset. Housing provides shelter and sense of security and stability. People often form a strong attachment to their home as it can be a place where they have lived for a number of years, raised their family and where they may be planning to retire. Census data indicate a high proportion of Echuca-Moama residents own their home.

Dwellings located in a residential pocket around Crofton Street and Henry Street are located as close as 80 metres from the alignment. Houses in this residential pocket are detached homes which are well kept. As discussed in Section 6.1.7, this part of Echuca is home to a moderate to highly affluent community.

There are also eight (8) dwellings which front the north-west of Warren Street between Homan Street and Redman Street. The dwellings are situated on relatively large blocks and are separated from Warren Street by a service Road. Further along Warren Street toward Echuca are several more dwellings located in the Urban Floodway Zone (UFZ).

# 6.3 Reactions to the Proposal

This section provides an overview of how different groups in the community (social receptors) have reacted to the proposal. Reactions at the community level are outlined first, followed by the reaction of particular groups likely to be affected by the proposal.

# 6.3.1 The Communities of Echuca-Moama

# 6.3.1.1 The Benefits of a Second Crossing

As part of the 2009 CATI Survey, residents of the Shire of Campaspe were asked if they support or oppose in principle the idea of a second bridge crossing for Echuca-Moama. At this time 98% of Echuca residents indicated that they support a second crossing (89% indicated strong support), whereas 92% of respondents from the Balance of the Shire (i.e. those not resident in Echuca) indicated support.

The top reasons for support were:

- The existing bridge can't cope with traffic flow (Echuca 70%, Balance 58%);
- To meet increased population and traffic needs (Echuca 43%, Balance 56%);
- The current bridge needs to be repaired (Echuca 34%, Balance 25%);
- For emergency services / disruption when existing bridge is closed (Echuca 37%, Balance 23%);
- To better connect Echuca and Moama (Echuca 34%, Balance 25%).

Similarly, the 2011 URS SIA reported that the large majority of the 30 Echuca-Moama residents surveyed and most stakeholder organisations surveyed recognise the need for a second bridge.

Consistent with the above, the 2012 consultation undertaken by AECOM revealed support for a second crossing among a wide range of community stakeholders, including residents, business operators, community services providers and local schools. It was consistently reported that a second river crossing would deliver better access between Echuca and Moama and address the

reliance on one bridge, which is problematic particularly at busy times such as the Easter period or if there is an incident on the bridge (such as an car accident) which requires it to be closed.

Community service providers and local schools indicated that their service catchments cross the Murray River and that congestion on the existing Bridge results in delays and frustration for users of their services. Educational institutions in particular were reported to serve students from both Echuca, Moama and beyond and consequently, increase cross-river travel by walking, cycling, public transport usage and private car.

In 2012, AECOM was advised by a 'Community Consultation Group' that provision of a new road link and bridge would facilitate the ongoing process of integration of the two townships of Echuca and Moama and ultimately the development of a significant regional centre. Both local Councils reported working toward realising the benefits of an integrated centre. For example, investments in community infrastructure, such as the new library and a redeveloped hospital, were being considered on the basis that the infrastructure would respond to the needs of both towns. In this context, it was reported that improved security of access across the Murray River delivered by the proposed second bridge would be highly beneficial.

The above considered, very strong and wide ranging in principle support for a second Murray River bridge at Echuca-Moama has been observed consistently in Echuca-Moama for many years. The drivers of this support, namely concerns about increasing traffic congestion on the existing bridge and security of access across the River, are likely to have intensified rather than dissipated in recent years as the population in Echuca-Moama has grown.

The limited consultation undertaken to support this SIA confirm the findings of previous SIAs. Moreover the Shire of Campaspe reported that removal of traffic from the Echuca CBD and Port area would have the additional benefit of making this area more useable for pedestrians.

# 6.3.1.2 The Mid-West Option

As part of the 2009 CATI Survey residents of the Shire of Campaspe were asked to comment on a Mid-West Option that is very similar (not materially different) to the Project being assessed in this SIA. The survey found that 49% of Echuca respondents were opposed to the Mid-West Option and 44% were in support. In comparison, 33% of Balance of Campaspe respondents were opposed to the option and 47% in favour. This is not an uncommon response pattern and reflects the fact that those living outside Echuca would likely enjoy the benefits of the Project and be less likely to be affected by localised negative impacts.

Key reasons provided by those who expressed support for the Mid-West Option were:

- 'It is the best/most direct/best of all options' (25% of supporting Echuca respondents,) and
- 'we need a second bridge' (24% of supporting Balance of Campaspe respondents).

Key reasons provided by those who expressed opposition for the Mid-West Option were:

- It would create more traffic congestion (21% of not-supporting respondents);
- Too close to sports grounds/recreation areas (18% of not-supporting respondents), and
- Too close to residential areas/schools (16% of all not-supporting respondents and 22% of Echuca not-supporting respondents).

The survey results indicate that, despite overwhelming support for a second crossing in principle, that once a particular alignment is identified, support for the Project declines. This reflects the experience that 'real' projects have both positive and negative impacts as opposed

to 'in principle' projects which tend have no negative consequences. Notwithstanding this, only 30% of Echuca base respondents reported that they would feel upset/ disappointed if a second Echuca Bridge Crossing were to be built along the Mid-West Option corridor, and only 16% reported that 'I think my lifestyle or business would be negatively affected in some way by the proposed Mid-West Bridge'. Table 10 is taken from the 2009 Survey and provides the responses to the statement 'Summing up, please rate how you would feel if a second Echuca Bridge Crossing were to be built along the Mid-West Corridor'.

# Table 11 Survey Responses to how people would feel if a second Echuca Bridge Crossing were to be built along the Mid-West Option corridor

Response	%
Happy / Delighted or better	39.1%
Neutral	29.6%
Upset / disappointed or worse	29.8%
Don't Care /Over it / Sick of it/ can't say	1.5%

#### Source Crosby Textor in 2009

As with the survey research conducted in 2009, the limited consultation undertaken to support the 2014 SIA found evidence of mixed views regarding the desirability of the Project. Positive views were grounded in an acceptance of the need for a second crossing to ensure convenient and secure access across the Murray River, whereas negative views related to concerns about amenity impacts of the bridge for residents and community groups, such as sporting clubs. Notwithstanding, and similar to the 2009 survey, consultation conducted in 2014 suggests that although the Project may generate some negative impacts for the local community, people (in the community) want a second crossing and would in the main be prepared to accept the associated negative consequences.

### 6.3.1.3 Project Delays

Stakeholders consulted in 2011 and 2012 reported that delays in the identification of a preferred alignment for a second river crossing and a lack of information about the timeline for implementation of the Project were resulting in negative impacts for the Echuca community. For example:

- Funding and upgrades to sports facilities have been stalled until a decision is made, which is affecting club operation, and
- Former Echuca College land at Victoria Park will not be released until a decision is made.

The above comments were reiterated by the Shire of Campaspe and the Murray Shire Council during interviews conducted in 2014 as part of this SIA. For example, Murray Shire Council indicated that plans to beautify the Moama Main Street were on hold until the location and timeline for the development of a second crossing was settled. Similarly, the Shire of Campaspe indicated that master-planning work in Victoria Park was currently on hold until a final decision on the bridge alignment was made.

Although not an impact of the Project *per se,* a lack of certainty and project delays can have real and significant consequences for local communities.

# 6.3.1.4 Private Land

# **Property Acquisition**

The Project requires only limited acquisition of private land and does not directly affect any residential dwellings. As a result, concerns expressed by private land holders focussed on amenity impacts, rather than those associated with acquisition.

#### **Residential Amenity**

Both the 2011 and 2012 SIA identified concerns among residents living in areas in close proximity to the proposed alignment about potential consequences of the Project for their residential amenity. Concerns about potential noise and visual impacts were expressed, in particular by residents of the Warren Street and Crofton Street areas. Concerns that the Project may isolate the Warren Street residential area from the rest of Echuca were also reported in 2011.

Follow-up consultation with residents of areas located in close proximity to the proposed alignment such as Crofton and Warren Streets was not undertaken as part of this SIA as sufficient data were available from previous SIAs. The reactions of residents living in these areas has been documented in previous SIA's and mirrors the reactions of residents of homes located near proposed having major road infrastructure observed on many occasions throughout Victoria. This SIA will draw on these findings and proceed on the basis that these residents are sensitive to potential changes to their amenity.

# **Bridge Arts Project**

The proposed alignment would traverse a number of private land holdings located on the Moama side of the Murray River. There is currently no residential dwelling on the land and much of the holding is flood prone and not suitable for residential uses.

The owner of this land has developed a concept to develop the land as public arts precinct (the 'Bridge Arts Project', (refer to Appendix C) which ties in with the proposed Echuca/Moama bridge crossing and surrounds. It is the hope of the owner that the proposed bridges be designed to incorporate elements which would enhance the status of the Bridge Arts Project as an arts precinct which celebrates both the indigenous and non-indigenous heritage of the local area. The Bridge Arts Project is a private, landowner led proposal which is not linked to the proposed Echuca-Moama Bridge Project.

### 6.3.1.5 Users of Victoria Park

### **Passive Recreation**

Residents and stakeholders consulted in 2011 and 2012 raised concerns about the potential impact of the Project on the amenity and character of Victoria Park. Sections of Victoria Park to the west of existing sporting facilities in particular were valued for their natural and tranquil ambience. Concerns about potential loss of vegetation and access into natural/passive open space area were also expressed.

In 2014, the Shire of Campaspe Council reiterated that Victoria Park is a popular and well used open space area and a significant asset for Echuca-Moama. Accordingly, retaining access into all the parts of the Park was thought to be an important outcome for the community.

Consultation undertaken with Shire of Campaspe Council in 2014 indicated that the Shire considers that a road structure within Victoria Park would be most appropriately located adjacent to existing formal recreational infrastructure / the Echuca Holiday Park as this would create a clear delineation between the built and natural environments of Victoria Park, and avoid the segregation of the bushland component into a series of smaller parcels.

#### Southern 80 Water-ski Race

Representatives of the Southern 80 Water Ski Race were consulted in 2011 and 2012 and again in 2014 as part of this assessment.

The Southern 80 is a water ski race that takes place on the Murray River between Torrumbarry and Echuca on the second Sunday in February each year. 2015 will be the fiftieth year of the event. The race attracts over 500 entries from all over Australia, New Zealand, Great Britain and the USA and approximately 50,000 people visit Echuca-Moama to take part, support competitors, or to watch the event.

The finish line for the race is located adjacent to the boat ramp carpark and the carpark is also the main viewing area for the race. The event organisers charge for entry to boat ramp carpark during the race and this is one of the main sources of income supporting the event.

Representatives of the Southern 80 indicated that structures located in the River have the potential to make the river unsuitable for the race. However, it was their understanding that the bridge design would be such that supporting piers would be located toward the bank of the river and not interfere with the race.

Representatives of the Southern 80 indicated that, assuming the bridge design did not interfere with the race, the main issue for them would be to ensure that that the construction process does not interfere with the running of the event, or limit the access to and/or the ability to enclose the boat ramp car park/charge an entry fee. It was also stated that it is important the race be run on the second Sunday in February as it is part of an annual schedule of events which are programmed more than a year in advance. Changes to the date of the race would be very difficult to manage form a scheduling point of view. Also many people book accommodation in Echuca well in advance of the event and local sporting fixtures are scheduled so that teams which play on ground located within Victoria Park have away game on the weekend of the race.

#### Echuca Lawn Tennis Club

The Echuca Lawn Tennis Club was consulted in 2011 and 2012 and again in 2014 as part of this assessment. The club has 350 members plus social players.

The club's primary concern is the potential loss of 6 tennis courts. At present the club makes regular use of all its courts to support local competitions. In addition, the club hosts an annual Easter Tennis Tournament which runs for four days and attracts approximately 800 entries from players all over Victoria and NSW. The event has been running 84 years and is a well-known event on the tennis calendar.

The club reports that if courts were lost/ taken out of use for an extended period this would potentially result in loss of membership. Moreover, if the annual tournament could not be run there would a significant financial impact for the club. It is the club's expectation that if the Project precedes replacement courts would be developed prior to the decommissioning of the courts affected by the Project.

The club also expressed concerns about the potential impact of the Project on the amenity of existing courts for players. The court facilities are currently situated within a bushland setting

which offers a high level of amenity, which would be degraded by traffic noise and the visual impact of a road. Notwithstanding, the club reported that while some members hold negative views about potential amenity impacts, lowered amenity would be unlikely to affect membership levels.

#### Echuca Football-Netball Club

The Football-Netball Club was consulted in 2011 and 2012 and again in 2014 as part of this assessment. The club has 450+ members.

The club reported that it does not hold any concerns regarding the Project. The main issue for the club is to ensure that access into their ground is maintained, and it is believed that this would be achieved if the Project proceeded. The club did not report concern about changes to visual or acoustic amenity.

#### Echuca Cricket Club

In 2009, the Echuca Cricket Club advised Vic Roads that the Echuca Cricket Club's existing facilities would not be directly impacted by the proposed road. However, as part of the process to develop a Master Plan for Victoria Park, the Club had been looking at developing new practice nets on land that will be affected by the Project. Therefore, as a result of the Project, the Club will need to reconsider where the new practice nets are to be located.

In 2014, attempts were made to contact the Club to confirm views expressed previously by the Club, however no response was received.

Amenity impacts for cricket players and spectators would likely be similar to those experienced by football club players and spectators as both clubs use the same playing field and clubhouse facilities. For the purpose this SIA, the issue of identifying a suitable location for the new practice nets will be resolved during the finalisation of the Master Plan in consultation with the Echuca Cricket Club.

#### Echuca Holiday Park

Concerns about potential noise increases within and changes to visual amenity of the Echuca Holiday Park were expressed in 2011 and 2012, particularly in the context of permanent and semi-permanent residents of the park.

In 2014, a brief meeting was undertaken with the Park Managers and representatives of Shire of Campaspe who oversee the Park. Consistent with previous round of consultation, concerns were expressed about potential changes to the acoustic and visual amenity of the park.

Concerns were raised in the context of annual site holders, who have a strong attachment to the park, and also the remaining permanent residents.

Concerns were also raised in the context of the attractiveness of the park to tourists and potential commercial consequences for the Holiday Park managers/Shire of Campaspe, if visitation levels reduced.

#### 6.3.2 Echuca Cemetery

Echuca Cemetery is located on Warren Street, with access off Warren Street via Homan Street.

In 2011 The Echuca Cemetery Trust reported that around 220 to 250 people visit the Echuca cemetery each week, with around 100 people typically visiting each Saturday and Sunday. This number increases to 200 to 300, or even up to 500, on events such as Mother's Day or Anzac Day.

Corteges typically travel from High Street into Warren Street and then turn right into Homan Street. It is also common for corteges to come from Moama. The average size of a funeral cortege is approximately 50 cars. The Cemetery Trust reported that it would be important to ensure that that Warren Street could continue to be used safely by cemetery visitors, including those participating in corteges.

Some concerns were also expressed about the impact of additional traffic noise for visitors to the cemetery.

# 7.0 Impact Assessment

The detailed impact assessment documented in this report addresses the potential social impacts of the construction and operation of the Project. Impacts are described for road users and also for private landholders and users of Crown Land.

Social impacts associated with the Project which arise in association with land acquisition and severance would occur when the Initial Alignment is developed. Development of the Ultimate Duplication would not produce any additional impacts resulting from land acquisition and severance. Impacts associated with changes to visual and acoustic amenity likewise would be felt when the Initial Alignment is developed and would not increase materially with the development of the Ultimate Duplication.

At this stage, details of the proposed construction process are not available. Consistent with VicRoads practice, a construction program and a Construction Environmental Management Plan (CEMP) will be developed in conjunction with the successful contractor. The CEMP would include detail of management practices which would ensure construction occurs within accepted industry standards and metrics across a variety of considerations, including impacts on users of public roads and property near the construction site. Any additional investigation needed to develop that detail would be undertaken as required at the time.

Construction activities associated with the development of the Initial Alignment and Ultimate Duplication are likely to be similar in nature, and would have the potential to result in lowered amenity and some changes to local access. However, unlike operational impacts, impacts associated with construction would occur during two distinct but limited periods. Mitigating actions which relate to management of the construction process apply to construction associated with both the Initial Alignment and Ultimate Duplication.

The social impacts associated with the operation of the Initial Alignment and Ultimate Duplication works are anticipated to be similar, with a greater impact expected at the Initial Alignment stage when land acquisition and severance issues associated with the establishment of the Right of Way will occur. Impacts on amenity associated with the upgrade to the Ultimate Duplication would primarily be due to construction activity.

## 7.1 Road Users

## 7.1.1 Existing Conditions

Echuca-Moama is a significant regional settlement with a combined population of almost 20,000 people. While the two towns are separated by the Murray River and are located in different states, residents use the towns as one integrated settlement. That is, people from each town work and access facilities, services and retail opportunities on either side of the river. In some cases, such as library and secondary health services, services are only available on one side of the river. In other cases such as schools, while facilities are located either side, many residents prefer to make use of facilities across the river.

Echuca and Moama are currently linked by one road-bridge with a single carriageway (one lane in either direction). The nearest alternative river crossings are at Barham, 86 km to the west, Barmah 36 km to the east. During peak summer tourist events traffic congestion on the existing bridge results in extensive delays for motorists. Some stakeholders reported traffic banking up along the Cobb Highway for several kilometres. Similarly, due to the reliance on one crossing, minor traffic incidents on the bridge have the potential to cause major delays.

Congestion and closures restrict the movement of residents and emergency service vehicles from one town to the other. In a period of higher risk, emergency services often have to station vehicles across the Murray River in case bridge access is compromised.

Also, traffic in the Echuca and Moama town centres affects the amenity and safety of these centres for pedestrians. The existing bridge cannot carry over-width loads and higher mass limits vehicles used by an increasing proportion of the freight transport industry.

#### 7.1.2 Social Change/Effect

The Project would establish a second river crossing (up to four lanes) suitable for use by motorists and pedestrians and cyclists. The Project would alleviate congestion on the existing bridge and re-direct traffic from the Echuca and Moama town centres. For example, it is projected that traffic volumes on Heygarth Street, west of Annesley Street would reduce by 86% in the Traffic Impact Assessment undertaken for this Project. The proposed Murray River Bridge would provide an alternate route across the river and improved security of access which would guard against potential bridge closures. The proposed bridge would also cater for the needs of the freight, manufacturing and agricultural industries.

## 7.1.3 Social Impacts

Delays associated with congestion on the existing bridge are a source of lost time for local residents many of whom move across the bridge on a daily basis. Improved traffic flows would improve access to facilities, services and retail opportunities for the local community and across the river for travellers passing through the region. This improved access would be highly beneficial for the local community and is beneficial for passing motorists. There may be some minor changes to access during the construction period, which could potentially lead to inconvenience for motorists. However, these changes would likely be for short periods and have only limited impacts.

The Project greatly reduces the risk for local residents and visitors that they would be unable to cross the river at a critical moment. Examples provided by stakeholders of occasions where restricted access would have negative social consequences ranged from undesirable scenarios, such as not being able to pick up children from childcare, to unacceptable scenarios, such as being unable to access medical care during an emergency, including the ability of emergency service vehicles to access incidents. This considered, the improved security of access delivered by the Project is a necessary improvement for the local community and highly beneficial for people visiting Echuca and Moama from throughout Victoria.

The Project would improve the amenity and safety of the Echuca and Moama town centres by removing traffic from these areas, including heavy vehicle traffic. The Traffic Impact Assessment predicts that High Street in the tourist precinct in Echuca would have around a 40% reduction in all traffic and a 50% reduction of heavy vehicles if the bridge is built. In Meninya Street in Moama there would be a 35% reduction in all traffic and a 36% reduction in heavy vehicles. Stakeholders reported that the using the commercial strip in Merinya Street, Moama during peak traffic periods is challenging due to difficulties parking in the parallel bays provided. Similarly, High Street and Heygarth Streets in Echuca at times experience heavy traffic flows, which impact upon pedestrian safety and amenity. The Project would partially resolve these difficulties and in doing so generate impacts that are beneficial for the local community.

The Project would incorporate a shared off road walking and cycling path enabling pedestrians and cyclists to travel the length of the new road on a shared pathway, which would connect into the existing network in Echuca and Moama. The proposed shared pathway would provide access / connection to the existing tracks within Victoria Park and the surrounding pedestrian and bicycle networks in Echuca and Moama. Additionally, there would be a sealed on road shoulder/ bicycle lane proposed for the length of Project on both sides of the carriageway. These inclusions would reduce the travel distance for pedestrians and cyclists wishing to cross the Murray River to access Victoria Park and the Moama Sports Precinct. The improvement in connectivity would be such that these destinations would be readily accessible to pedestrians living (or residing in temporary accommodation) on either side of the Murray River, a beneficial outcome for the local community and visitors to Echuca. The provision of an off road shared pathway is also likely to encourage use particularly by school aged children and recreational bicycle riders.

No provision for bicycles would be made at arterial road intersections (Murray Valley Highway/ Warren Street, Warren Street/ new road and new road/ Cobb Highway). At these locations connectivity will be provided to the shared use path which will run parallel at existing surface level for the length of the alignment, except where it adjoins the Campaspe River and Murray River bridges, to enable pedestrian and bicycle access across the Rivers.

During construction the Project would alter access along an existing off-road cycling track in Moama along Boundary Road which provides access from the local visitor information centre and to the west of the township. However, a signalised pedestrian crossing would be provided at the Meninya Street/ Cobb Highway intersection which would provide for safe access across the Cobb Highway and provide for connection to the existing bike path along Boundary Road.

#### Significance

The Project would generate a range of positive impacts for road users. Impacts would be felt primarily by local residents of Echuca and Moama but also by motorists living within and passing through the region.

Impact	Stage	Significance	Sensitivity	Magnitude		
				Scale	Duration	Reversibility
Access across the River secured	Operation	Extremely Positive	Necessary	Local and Regional	> 10 years	Permanent
	Construction	N/A				<u> </u>
Travel times	Operation	Positive	Highly beneficial	Local and Regional	> 10 years	Permanent
	Construction	Negligible	Somewhat acceptable but not desirable	Local	Less than 6 months	Can be fully reversed
Improved amenity/safety	Operation	Moderately Positive	Beneficial	Local	> 10 years	Permanent

#### Table 12 Assessment of Significance – Impacts for Road Users

Impact	Stage	Significance Sensitivity Magnitude			de	
				Scale	Duration	Reversibility
in town	Construction	N/A				
centres						
Improved	Operation	Moderately	Beneficial	Local	> 10	Permanent
pedestrian		Positive			years	
/cyclist	Construction	N/A				
connectivity						

#### 7.1.4 Mitigating Actions

No additional mitigation actions are recommended

## 7.2 Users of Private Land

#### 7.2.1.1 Existing Conditions

#### Private Property

Privately held property supports are range of activities/land uses for owners, including business activity and leisure pursuits.

Residential dwellings in particular provide a range of benefits for occupants including shelter, a place to entertain guests, a place of rest and sanctuary, etc. For owners of residential dwellings their property is a major asset. In many cases owners (and in particular owner occupiers) are very attached to their properties. Owner occupation in Echuca and Moama is very high. Also, over a third of households living in Echuca/Moama rent their dwelling.

#### **Bridge Arts Project**

The Preferred Alignment is proposed to extend through freehold land in New South Wales, extending from the Murray River to Boundary Road. The owner of the property, which is on the northern side of the Murray River, proposes to develop the land into an arts precinct (the 'Bridge Arts Project') focusing on the pre and post-colonial cultural development of the Echuca-Moama region with a focus on the indigenous traditions of the Registered Aboriginal Party, the Yorta Yorta Nation Aboriginal Corporation. The Bridge Arts Project is a private, landowner led proposal which is not linked to the proposed Echuca-Moama Bridge Project.

#### 7.2.1.2 Social Changes/Effects

#### **Residential Properties**

Establishment of the Right of Way would require only very limited acquisition of private property and no residential dwellings located in Victoria or NSW would be directly impacted. One residential property in Victoria (at the end of Crofton Street) and one residential property in NSW (on Boundary Road in Moama) would require acquisition of land, however the dwellings on these properties would not be directly impacted.

The Project would also require the acquisition of land from fourteen (14) other privately owned properties in Victoria and five (5) other privately owned properties in NSW.

Three of the properties Victorian affected are located to the south of Warren Street and would lose only a small sliver of land from their northern edge. There are no structures on these

properties and therefore it is likely that the implications for existing land holders would be minimal. The remainder of the affected properties are located to the north of the proposed roundabout on Warren Street near the corner of Payne Street. One of the affected properties includes shedding. The loss of this infrastructure may have implications for the existing owner.

PROPERTY TYPE	VIC	NSW
Freehold Properties	15	6
Crown Properties	12	-
Total Properties	27	6
Total Titles (some titles contain more than one lot)	51	7

#### Table 13 Property Acquisition Summary

Access to existing residential properties would be largely retained in its current form. In Victoria, residential properties fronting Warren Street would be required to access Warren Street via new access roads that connect to Redman and Homan Streets. In NSW, properties along Boundary Road would not have direct access to Meninya Street, however access would be maintained via Perricoota Road and the Cobb Highway. Additional access to the east side of the Cobb Highway would be provided by the reconnection of Francis Street to the Cobb Highway/ Perricoota Road intersection.

The Preferred Alignment makes use of Warren Street and there are a number of residential dwellings located along this street. The Preferred Alignment also passes over the Campaspe River in close proximity to residential dwellings in Crofton Street and Henry Street. These dwellings would be exposed to increased traffic noise post project. To mitigate noise increases it is proposed that a noise wall 1.5 metres high and 525 metre long noise be developed along the eastern side of the alignment. With mitigation noise levels in Crofton Street are expected to increase from 43 to 55  $L_{10}$ , 18hr dB(A) and noise levels in Henry Street are expected to increase from 49 to 56  $L_{10}$ , 18hr dB(A).

An elevated section of the road would also be visible looking south west along Crofton Street However; the significance of this change has been assessed as low in the visual impact assessment (SPIRE 2014).

The Project would result in an influx of workers to Echuca, Moama and surrounds (estimated at 135 FTE's for each year of construction by Essential Economics 2015) who would require accommodation. There is very little capacity available in the local rental housing market (less than 1% vacancies) (Essential Economics 2015).

#### Bridge Arts Project

There is currently no residential dwelling on the land and much of the landholding is flood prone and not suitable for residential uses. No current use of the land would be affected by the Project. In response to the Project the land owner has developed a concept for a public arts precinct, which is tied to the presence of the proposed Bridge. The owner aspires for the proposed Bridge to be designed to incorporate elements which enhance the status of the privately proposed Bridge Arts Project.

#### 7.2.1.3 Social Impacts

#### Residents

The proposed partial acquisition of the residential property in NSW would severely affect the quality of the site as a place of residence due to the extent of land to be acquired and its location close to existing dwelling and garden (including a pool). The lifestyle of the existing owner/occupier would be severely impacted. The proposed partial acquisition of the residential

property in Victoria would not severely diminish the useability of the property as a place of residence, although the proposed changes would most likely be unwelcome.

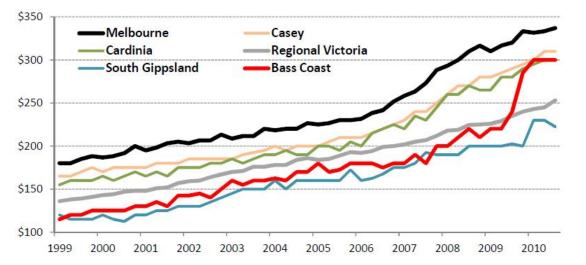
The remainder of the private properties subject to partial acquisition are not intensively developed and in most cases only a small part of the property would be acquired. The Urban Floodway zoning of this land also constrains its useability. There may still be implications for existing owners. However, the placement of the ROW within the existing road reserve and crown land holdings has successfully mitigated potential impacts associated with acquisition of private land.

In the operational phase, changes to the way residents access their properties would affect a small number of residents. The changes would be of a minor nature and have only limited consequences. Also, any changes required during the conduction process would likely be for short periods and have only limited consequences. Residents living in areas to the north of Warren Street have expressed concerns that the Project would isolate their residential area from the rest of Echuca. This part of Echuca is already somewhat separate from the main body of the town and has relatively rural character (due to larger blocks and unsealed roads). While the concerns of these residents are acknowledged, the proposed road is at grade in this section and direct access to Warren Street would be retained. A result of these existing conditions, the degree of physical separation would not be changed materially.

Residents are generally quite sensitive to altered acoustic and visual amenity as the result of road projects and residents and Warren and Crofton Street expressed concerns during the 2011 and 2012 consultation. While predicted noise levels do not exceed the Projective Objective Noise Level (PONL), noise increases are projected. Given the reaction of local residents to the proposal and the existing quiet suburban setting of Crofton and Henry Streets, it is likely that at least some of the affected residents would view the change as undesirable. While affected residents may adapt to the altered conditions, in some cases they may consider relocation.

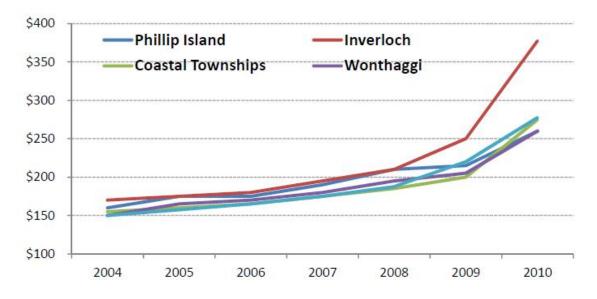
Construction works associated with the Project would be carefully managed so that impacts (noise, dust etc.) are minimised. Upon completion of each stage the construction site would be landscaped and re-vegetated, including reinstating topsoil, seeding, planting trees and shrubs, installing weed mats and mulch, and installing any design elements, as required. Notwithstanding, construction noise may result in lowered residential amenity.

There is very little capacity available in the local rental housing market and therefore an influx of 135 (Economic Impact Assessment) workers to the area has the potential to raise rental prices, with implication for housing affordability. Increases in the cost of rental accommodation have been observed in other areas during periods of major construction activity. For example, the median rental price for a three bedroom dwelling increased by 25% in Bass Coast Shire immediately following commencement of work to construct the desalination plant, an increase well above historical trends. The scale of the incoming workforce to support work at the desalination plant was greater than is projected for Echuca (1,187 workers renting 817 dwellings, compared with 135 workers for Echuca). However, substantial rental price increases were observed in particular townships in Bass Coast Shire following an influx of a relatively small number of workers. To illustrate, 224 desalination plant workers took residence in Wonthaggi (population of 4,354), renting a total 151 dwellings (average household size of 1.48). This influx coincided with an increase in median rental price of 27% in the year 2009-10, compared with an increase of 5% the previous year (See Figure 10 and Figure 11).



Across Bass Shire, the number of affordable rentals decreased from 250 to 100 in 2009-10 and local stakeholders reported that there had been an increase in evictions of long term tenants.

<sup>(</sup>Source Kliger and Associates 2011)





On the basis of the Bass Coast experience, if incoming workers to support the Project all choose to take residence in Echuca/Moama, it is possible that there would be a significant uplift in the price of rental accommodation. However, 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. Measures could be employed to encourage

Figure 10 Median Weekly Rent: Bass Coast and Selected Areas

incoming workers to make use of this surplus holiday accommodation and accommodation in nearby townships.

### Bridge Arts Project

The Project would not generate any notable social impacts relating to the current use of the land, which is located on the northern side of the Murray River. However, the Project has potential to enhance/accelerate the development of a public arts precinct on the land. While such a precinct could be developed even if the Project employed a standard bridge design, were the proposed bridge to incorporate design elements consistent with the overall vision for the arts precinct, this may contribute to the success of the Bridge Arts Project.

VicRoads and Roads and Maritime Services are committed to ensuring the Echuca-Moama Bridge Project is sympathetic to the Echuca-Moama community and surrounding environment, and would work with key stakeholders and the community regarding the architectural features and naming of the road alignment.

#### Significance

Impacts for private land holders in the operational phase of the Project would result mainly from changes to acoustic and to a lesser degree visual amenity. No residential dwellings would be compulsory acquired and changes to access would not produce notable reductions in convenience for private land holders.

During the construction phase, the influx of workers to Echuca has the potential to raise rental prices, which would produce negative social impacts for renters, particularly those on lower income. This impact could be mitigated if a housing program for incoming workers was established which encourages these individuals and families to take residence within surplus holiday accommodation.

Impact Stage		Significance	Sensitivity	Magnitude			
				Scale	Duration	Reversibility	
Property Acquisition	Operation	Negligible	Neither desired or resisted	Small number of individuals	> 10 years	Permanent	
	Construction	N/A					
Changed Access	Operation	Negligible	Neither desired or resisted	Small number of individuals	> 10 years	Permanent	
	Construction	Negligible	Neither desired or resisted	Small number of individuals	Less than 6 months	Can be fully reversed	
Rental	Operation	N/A	N/A				
Prices	Construction	Moderately Negative	Detrimental	Part of a local community	2-5 years	Important aspects can be reversed	
Acoustic Amenity	Operation	Minor Negative	Somewhat acceptable but not desirable	Part of a local community	> 10 years	Permanent	
	Construction	Minor Negative	Somewhat acceptable but not desirable	Part of a local community	Less than 6 months	Can be fully reversed	
Visual Amenity	Operation	Minor Negative	Somewhat acceptable but not desirable	Part of a local community	> 10 years	Permanent	
	Construction	Minor Negative	Somewhat acceptable but not desirable	Part of a local community	Less than 6 months	Can be fully reversed	

#### Table 14 Assessment of Significance – Impacts for Private Land Holders

#### 7.2.2 Mitigating Actions

VicRoads to continue to consult with Bridge Arts Project representatives.

VicRoads to develop a construction program to ensure that access and amenity are retained/ protected as far as is practicable for all private land holders. VicRoads to encourage the preferred contractor to collaborate with Council and other local stakeholders to develop a worker housing strategy, which links workers with holiday accommodation providers.

## 7.3 Users of Crown Land – Victoria Park

#### 7.3.1 Existing Conditions

Victoria Park is large recreation reserve (approx. 125 Hectares) which provides opportunities for passive and active recreation. The Park comprises a formal recreation area in the south east corner and a large bushland reserve bounded by the Murray River to the north and the Campaspe River to the west and south. The Park is very well used by the local community of Echuca-Moama and by visitors to the area from throughout the State.

The visual and acoustic environment of the formal recreation area within Victoria Park is influenced by the presence of man-made structures such as sports pavilions and the activities that this infrastructure supports. Ambient noise levels in this section of the Victoria Park are comparable with a 'typical' or 'quiet' suburban area and the scale of existing infrastructure is modest. Overall the active recreation section of Victoria Park has a low density urban character with a bushland backdrop.

The bushland section of Victoria Park is extensive and has a visual and acoustic environment with a natural character. The acoustic environment within this section of Victoria Park is dominated by natural sounds, although at times boat traffic on the Murray River can be heard.

#### 7.3.2 Social Changes/Effects

 Acquisition - the total land area within Victoria Park occupied by the ROW would be approximately six (6) hectares (4.8%). The majority of the area occupied by the ROW is bushland located at the interface of the bushland section of the Park and the active recreation section. The ROW traverses parts of Scenic Drive, six tennis courts, the vacant former school site, and the boat ramp car park (including a toilet block and a grassed areas with tables used for picnics).

Severance – The ROW crosses Scenic Drive at a number of locations (to the west of the tennis courts, and at three points to the north of the caravan park/around the boat ramp). However, pedestrian access into the bushland area would be facilitated by underpasses immediately to the north of the tennis courts (connecting to Scenic Drive) and immediately to the north of the caravan park. The proposed road would be elevated as it passes the boat ramp car park and therefore pedestrian and vehicular access to the ramp and car park would not be impeded. The location of the ROW ensures that the retained bushland area comprises one spatially continuous parcel of land. Campaspe Esplanade would be closed to vehicular traffic. However, access along the Esplanade for pedestrians and cyclists would be retained, linking the informal path along the southern edge of the Campaspe River and the Warren Street Bridge. Amenity - The Project would introduce major road infrastructure into Victoria Park at the interface of the bushland section and the active recreation section. Traffic noise would be increase substantially (from 42 to 62 dB(A)) at the tennis courts, to a lesser degree within the Echuca Holiday Park (42

to 54 dB(A)), and also to a varying degree within the bushland area (an increase from 42 to approximately 53 dB(A) is projected in the adjacent bushland at VIC 10 - Refer Noise Impact Assessment). Elevated road infrastructure would create a visual break between the recreational area and the bushland area. Road infrastructure would not be visible in large sections of the bushland area, including the majority of the length of Scenic Drive, due to the density of intervening vegetation.

#### 7.3.3 Social Impacts and Mitigating Actions

#### **Passive Recreation**

Victoria Park, in particular Scenic Drive and the bushland area, provides opportunities for a variety of unstructured recreational pursuits including exercising, dog walking, mountain biking and bird watching. Also, a grassed area waterside of the boat ramp car park is a popular area for viewing the river/ picnics. There are amenities such as a toilet block and picnic tables in this location and it can be accessed by car.

Victoria Park is used frequently by the local community and by visitors to Echuca-Moama. As a result, interruptions to the use of Victoria Park for passive recreation may cause negative impacts. Notwithstanding this, the Project would not substantially interrupt the use of Scenic Drive and the bushland for passive recreation because:

- The total land area that would be occupied by the ROW (approx. 6 Hectares) is relatively small when compared with the total bushland component of Victoria Park.
- The land traversed by the ROW would be adjacent to existing active recreational uses, leaving the remaining bushland area in one large, spatially continuous parcel.
- Sections of the bushland area would be more than 500 metres from the ROW, including the majority of Scenic Drive. Road infrastructure would not be visible from large sections of Scenic Drive and traffic noise would diminish across the intervening distance;
- The location of the ROW avoids placement of road infrastructure within the more scenic and tranquil sections of Victoria Park and assists in preserving the natural character of these areas.
- Access to key facilities and to Scenic Drive and less formal pathways would be maintained.

The above considered, the proposed physical changes to Victoria Park would be somewhat acceptable in the context of the existing attributes and use of Scenic Drive and the bushland areas within Victoria Park. The changes would be unlikely to influence the level of utilisation of these sections of the Park.

The ROW traverses the grassed picnic area waterside of the boat ramp carpark, which is well used and offers visitors an accessible (can be accessed via car) and comfortable (shaded and with seating provided) vantage point to view the Murray River. Depending on the placement of piers, some land used for passive recreation may be used to accommodate road infrastructure, and/or there may be a loss of parking capacity/toilet facilities. VicRoads has advised that toilet facilities would be reinstated (if required) and that access to the area would be retained.

These changes would not prevent the continued use of the area as a place to view the river and/or socialise. However, the amenity of the area would be altered. Specifically, users of this area would have clear views of the proposed bridge.

The visual and landscape assessment prepared by SPIIRE (2014) indicates that the predicted changes would have a very high impact on the recreational values this section of Victoria Park which can only be mitigated to some degree. Also, traffic noise at the boat ramp car park would also detract from the amenity of this location (noise levels would be increased by more than 10 dB(A)). The combined changes to visual and acoustic amenity at the boat ramp area would change the character of the location substantially potentially lowering the appeal of the location for the local community and some visitors. Similarly, the construction process would negatively affect the amenity of the boat ramp car park area.

#### Echuca Lawn Tennis Club

The Echuca Lawn Tennis Club has approximately 350 members and fields teams in a number of local competitions. The club also runs an annual tournament which draws players from across Victoria and NSW.

The Preferred Alignment ROW traverses six of the club's 17 courts. The Echuca Lawn Tennis Club is one of only a few remaining lawn tennis clubs in Victoria and therefore loss of the courts would result in a detrimental impact for the local community and those from throughout the state who play in the annual Easter Tournament. Loss of the courts may also have serious implications for the club's financial viability as it relies heavily on income generated by this event. However, VicRoads has committed to reinstate the courts and to funding their construction, prior to the existing courts being decommissioned. There appears to be substantial vacant land adjacent the existing courts that is not affected by the ROW and therefore this outcome could be achieved.

During the operational phase of the Project, access to the club's facilities including the tennis courts would not be affected. However, amenity for players while on court and for spectators and players when using the clubhouse facility and deck (which is orientated toward the proposed road), would be affected. Specifically, traffic noise would increase substantially and road infrastructure would be visible. While these changes to amenity would not prevent tennis matches being played, the pleasant bushland backdrop of the courts enhances the enjoyment of tennis for existing members and visitors. Accordingly, the predicted changes to amenity would be unlikely to affect participation in tennis by locals, the way that the clubhouse facility is used may change. For example, social gatherings after matches may be less likely to occur out on the deck, where traffic noise would be clearly audible. Also the attractive bushland setting of the courts is a drawcard for visiting players who participate in the annual tournament and therefore the appeal of the event may diminish for some visiting players.

The construction phase has the potential to interfere with local competitions and the annual Easter Tournament. The construction process would need to be managed effectively to ensure that disruptions to local competitions are minimised and that the Easter Tournament can run as planned. This would include the construction of replacement courts prior to the existing courts being decommissioned, and the management of issues relating to noise and dust, especially during the tournament.

It is understood that as part of the relocation of the tennis courts, any final arrangements to mitigate amenity impacts on the courts would be discussed with the tennis club.

#### Echuca Football Netball Club

The Echuca Football Netball Club has 450+ members and fields teams in a number of local competitions. The Project would not directly affect the activities of the Club though acquisition or severance, although the visual and acoustic amenity of the Club's facilities would be changed.

Club representatives reported that the participation in/enjoyment of football and netball is not highly dependent upon the existing (quiet) acoustic environment or the bushland setting of Victoria Park. Also, the arrangement of the playing surfaces and club buildings including pavilions and changing rooms is such that the ROW would be located behind these structures, and they would provide a natural acoustic barrier between the road and playing surfaces/viewing areas. Moreover, the main viewing area for the football ground looks over the ground towards the residential areas of Crofton Street and away from the proposed road. The changes to amenity at the Football and Netball facilities would therefore have a negligible social impact.

#### Echuca Cricket Club

The Echuca Cricket Club makes use of the same playing surface and facilities as the Echuca Football Club and therefore amenity impacts for the cricket club are likely to mirror those experienced by the football club.

The Project necessitates a reconsideration of the location of potential new cricket practice facilities which were to be located in the proposed road corridor under the draft Victoria Park Master Plan.

#### Southern 80

The Southern 80 Ski Race is an important sporting event with an international profile and is a major social and economic event for Echuca. Representatives of Southern 80 have indicated that the Project would not have ongoing negative implications for the event provided the bridge piers remain clear of the River. However, the construction process has the potential to conflict with the event. The construction process would need to be managed effectively to ensure that the event can run on the second Sunday in February and that access to the boat ramp car park can be provided during the event to avoid negative social impacts.

The project would allow for more efficient movement of spectators across the River and a different view of the race for spectators and also camera crews. Additionally, there is the possibility of using the bridge structure to mount temporary GPS timing equipment for the race. As such, it is considered that the Project would have a minor positive benefit on the Club Marine Southern 80 Ski Race.

#### Echuca Holiday Park

The Echuca Holiday Park provides 273 sites in total which are a mix of cabins and powered caravan sites. Park Management reports that the annual average occupancy level is 80% which is a much higher level than the State average of 40% to 50%. The Echuca Holiday Park's appeal reflects its location close to the Echuca Township, the Murray River and its pleasant setting in the grounds of Victoria Park. The Project would not result in the acquisition of Echuca Holiday Park land or severance of access to the Echuca Holiday Park.

However, the amenity of the Echuca Holiday Park would be altered. Specifically, there would be views of the bridge from within the Echuca Holiday Park, particularly to the western end, and traffic noise would be audible. A noise wall of 2.0m in height and 620 metres in length would be developed on the east side of the alignment which would mitigate noise increases within the Park. With mitigation noise levels are expected to increase from 42 to 54 dB(A) at the northern most and western most sections of the Echuca Holiday Park.

Construction has the potential to result in lowered visual and acoustic amenity within the Echuca Holiday Park. Access to the Park is from the south east end of Scenic Drive and therefore access to the Park is unlikely to be affected.

The predicted changes to amenity would have varying implications for different users of the Echuca Holiday Park:

- The majority of tenants at any one time are short term visitors to Echuca. Some visitors use the Echuca Holiday Park as a stopover place or jumping off point to explore the region, while others use the Echuca Holiday Park as an affordable accommodation option when visiting Echuca to participate in events such as the annual lawn tennis competition. It is likely the Echuca Holiday Park would still meet the needs of these clients.
- Other visitors use the Echuca Holiday Park because the park grounds themselves provide a pleasant place to relax. Some of these visitors may decide that the caravan park no longer meets their needs and there may be a downturn in visitation as a result. However, the social impacts associated with this issue are *negligible* as holiday makers can find an alternative place to take their holiday if they wish.
- Some Echuca Holiday Park visitors have been visiting for many years (up to 30 years) and/or hold an annual permit which has enabled them to construct mobile 'cabins' (which they own) on their sites. These users often have a strong attachment to the park. Such users will either adapt to the altered conditions or choose to move/ holiday elsewhere. If annual site holders choose to find an alternative site to holiday they would need to relocate their cabin. Therefore alerted amenity conditions are potentially more problematic for these users, creating a *minor negative* impact.
- There are a small number (six) permanent residents living within the Park, some of whom have lived in the Holiday Park for 10 or more years. Permanent tenancies are being phased out over time. For the permanent residents a *minor negative* impact would be created by the projected noise increases.

#### CFA

 CFA representatives have advised VicRoads in discussions between 2009 and 2012 that the proposed Echuca Moama Bridge proposal would not directly impact facilities used for fire brigade training and competitions within Victoria Park.

#### Significance

Impacts for users of Victoria Park are rated below. It has been assumed that the construction schedule would allow for the Southern 80 Ski Race and Easter Lawn Tennis tournament to go ahead as planned. If either of these events were interrupted, social impacts would be higher than indicated.

#### Table 15 Assessment of Significance – Impacts for Users of Victoria Park

Impact	Stage	Significance	Sensitivity		Magnitude	
				Scale	Duration	Reversibility
Passive Recreation (Scenic Drive and Bushland	Operation	Minor Negative	Somewhat acceptable but not desirable	Local Community	> 10 years	Permanent
Areas)	Construction	Minor Negative	Somewhat acceptable but not desirable	Local Community	2-5 years	Can be fully reversed
Passive Recreation (Car	Operation	Moderately Negative	Undesirable	Local Community	> 10 years	Permanent
Park/Picnic Area)	Construction	Minor Negative	Undesirable	Local Community	2-5 years	Can be fully reversed
Football/Netball/ Cricket	Operation	Negligible	Neither desired or resisted	Part of a local community	> 10 years	Permanent
	Construction	Negligible	Neither desired or resisted	Part of a local community	2-5 years	Can be fully reversed
CFA	Operation	Negligible	Neither desired or resisted	Part of a local community	> 10 years	Permanent
	Construction	Negligible	Neither desired or resisted	Part of a local community	2-5 years	Can be fully reversed
Tennis Club	Operation	Moderately Negative	Undesirable	Local and Regional Community	> 10 years	Permanent
	Construction	Minor Negative	Undesirable	Local Community	2-5 years	Can be fully reversed
Southern 80	Operation	Minor Positive	Limited benefits	Local and Regional Community	> 10 years	Permanent
	Construction	Negligible	Neither desired or resisted	Part of a local community	2-5 years	Can be fully reversed
Echuca Holiday Park	Operation	Minor Negative	Somewhat acceptable but not desirable	Part of a local community	> 10 years	Permanent
	Construction	Minor Negative	Somewhat acceptable but not desirable	Part of a local community	2-5 years	Can be fully reversed

## 7.3.4 Mitigating Actions

- Develop the construction program in consultation Southern 80 organisers and Echuca Lawn Tennis Club to ensure the construction process allows for the annual events run by these organisations to run with the minimum of disruption. As a minimum the construction program would ensure that access to the boat ramp car park is available during the Southern 80 event and that replacement tennis courts are developed prior to decommissioning of the existing courts.
- Develop construction program to ensure that access and amenity are retained/protected as far as is practicable for all users of Victoria Park.
- Reinstate any infrastructure such as public toilets, walking tracks, etc. that are damaged during the construction phase.
- Soften the visual interface between the road and tennis courts using vegetation or other suitable screening methods.

It is understood that as part of the relocation of the tennis courts, any final arrangements to mitigate amenity impacts on the courts would be discussed with the tennis club.

## 7.4 Other Users of Crown Land

#### 7.4.1 Existing Conditions

#### Community Facilities and Services in Echuca-Moama

The townships of Echuca and Moama combined accommodate a population of almost 20,000 people and this figure is expected to grow to 2031. Echuca-Moama is also a popular tourist destination, receiving 1.2 million overnight and daytrip visitors per year.

Consistent with its relatively large permanent population and tourism role, Echuca –Moama is currently equipped with major community infrastructure including a library, hospital and sporting facilities, as well as well-developed commercial precinct.

#### Echuca Cemetery

The Echuca Cemetery contains approximately 13,000 burials. Burials occur at the site on a weekly basis.

#### Merool Caravan Park

Merool on the Murray is a self-contained Private Holiday Park Resort situated on 68 acres of freehold land with over 2 kilometres of absolute Murray River frontage.

#### Moama Lions Park

The Moama Lions Park is a small (0.5 hectare) triangular shaped open space area. The park is located on a triangular section of road reserve bounded by Meninya Street to the east, Boundary Road to the south and an unused road reserve to the west. The Park supports local passive recreation with a children's playground, BBQ facilities, an irrigation pump display and a memorial cross. The cross in the Moama Lions Park is dedicated to Defence Force Servicemen. There is also a historical steam engine located on the site.

The land is owned by Murray Shire. The local Lions Club has made a financial contribution to support development of a children's playground, BBQs, etc.

#### **Rivers and River Navigation**

The Murray River and Campaspe River are currently utilised by a wide range of recreational users and businesses.

#### 7.4.2 Social Changes/Effects

#### Community Facilities and Services in Echuca-Moama

The Project would result in approximately 135 full time workers coming to work and live in Echuca-Moama from outside the region. These people would make use of existing community facilities and services in Echuca-Moama and may choose to participate in community activities, such as sports clubs, arts and cultural activities, etc.

#### Echuca Cemetery

The Project would not require the acquisition of any Cemetery land. The Project would increase traffic levels on Warren Street, and there is potential for this free flowing traffic to conflict with funeral corteges which travel along Warren Street and may consist of 50 or more slow moving vehicles.

However, an extended dedicated right-turn lane for traffic turning into Homan Street has been incorporated into the design to allow for funeral corteges to use Warren Street without interrupting the flow of regular traffic. This would be expected to provide for safer access. In addition, the Preferred Alignment was moved to the south side of Warren Street to retain the vegetation along the Warren Street frontage of the Cemetery, thereby retaining a visual screen to the cemetery.

#### Moama Lions Park

The unused section of road reserve along the western side of the Park is landscaped as part of the park however this area would be required for the Project. The Project would not impact on the BBQ facilities, memorial cross or the historic pump, but would require the removal of the children's playground and steam engine.

#### Merool Caravan Park

The Preferred Alignment would be located within 500 metres of the Merool Caravan Park at its closet point. At this distance all views of the proposed road would be screened by intervening vegetation and noise impacts would be limited.

#### **Rivers and River Navigation**

The piers of the Campaspe River and Murray River bridges would be constructed outside of the river channel (summer flow / low water mark extent). The bridge over the Murray River would allow for movement of recreational water craft and paddle steamers under the bridge, and use of the river by events such as the Southern 80 Water Ski race would not be impeded. The clearance under the Murray River Bridge will allow the paddle steamers to continue to operate up to the highest river height permitted by Roads and Maritime Services NSW.

Some vegetation within Victoria Park and along the banks of the Campaspe and Murray Rivers may need to be removed as part of the Project, however replacement landscaping is proposed.

#### 7.4.3 Social Impacts

#### Community Facilities and Services in Echuca-Moama

The total number of incoming workers would be small in the context of the capacity of existing facilities and services in Echuca-Moama. To illustrate, the ABS reports that there were 201.9 General Practitioners per 100,000 persons in Australia as at 2011. At this rate of supply the incoming worker population would create demand for 0.27 GPs, a small increase. Given that Echuca-Moama is a well-established service centre, the additional demand for facilities/services generated by the Project workforce would be negligible.

The people of Echuca-Moama would be accustomed to the presence of 'non-locals' in their towns and are unlikely to view a small number of workers coming to Echuca-Moama to live for a short period in negative terms. In some cases the incoming workers may participate in community activities, such as sports clubs, arts and cultural activities, and in doing so enrich social and cultural life in the towns.

#### Echuca Cemetery

The Project design ensures that funeral corteges would be able to access the cemetery safely and therefore the use of the existing cemetery can continue unaffected such that social impacts would be *negligible*.

#### Moama Lions Park

The Project would result in the removal of the children's playground (leaving the BBQ facilities, memorial cross and historic pump in situ).

The existing park is situated next to a major road and offers only limited amenity. Murray Shire Council representatives indicated that it is used infrequently and expressed no objection to the land being acquired to support the Project. The Shire did not express any requirement for there to be a children's playground or BBQ facilities on the site after construction of the Project.

Lions Club representatives likewise did not express an objection to the play equipment or steam engine being removed from the site, and noted that the use of the park was limited in part due to the absence of toilet facilities on the site.

The Lions Club did express a desire to see the children's playground infrastructure and steam engine re-established elsewhere, a matter they would take up with Murray Shire at the appropriate time.

Upon the safe removal and relocation of play equipment and other infrastructure from the Lions Park in consultation with Murray Shire and the Lions Club, the Project would have a negligible social impact.

#### Merool Caravan Park

Given that there would be very limited physical change at the Park due to the Project, associated social impacts would be negligible.

#### **Rivers and River Navigation**

The Project design ensures that the use of the rivers can continue unaffected such that social impacts would be *negligible*. The design and species selection for landscaping would be in keeping with the existing landscape.

#### Significance

Impacts for other users of Crown Land are rated below, reflecting the extent of the physical change and the sensitivity of particular receptors to the change.

Impact	Stage	Significance	Sensitivity		Magnitude	
				Scale	Duration	Reversibility
Community Facilities and	Operation	N/A				
Services in Echuca-Moama	Construction	Negligible	Neither desired or resisted	Part of a local community	Less than 6 months	Can be fully reversed
Echuca Cemetery	Operation	Negligible	Neither desired or resisted	Local Community	> 10 years	Permanent
	Construction	Negligible	Neither desired or resisted	Part of a local community	Less than 6 months	Can be fully reversed
Moama Lions Park	Operation	Negligible	Neither desired or resisted	A small number of people	> 10 years	Permanent
	Construction	Negligible	Neither desired or resisted	Part of a local community	2-5 years	Can be fully reversed
Merool Caravan Park	Operation	Negligible	Neither desired or resisted	Part of a local community	> 10 years	Permanent
	Construction	Negligible	Neither desired or resisted	Part of a local community	2-5 years	Can be fully reversed
Rivers and River Navigation	Operation	Negligible	Neither desired or resisted	Local and Regional Community	> 10 years	Permanent
	Construction	Minor Negative	Undesirable	Local and Regional Community	Less than 6 months	Can be fully reversed

Table 16 Assessment of Significar	ice – Impacts for Private Land Holders
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#### 7.4.4 Mitigating Actions

VicRoads contractor to facilitate the safe removal and relocation of play equipment and other infrastructure from the Lions Park in consultation with Murray Shire and the Lions Club.

VicRoads to develop a construction program for the Initial Alignment and Ultimate Duplication which ensures that access and amenity are retained/protected as far as is practicable for all users of the Murray River.

# 8.0 Conclusion

AECOM and Public Place were engaged by VicRoads to prepare a Social Impact Assessment Report in relation to the Echuca-Moama Bridge Project. The detailed impact assessment documented in this report addressed the potential social impacts of the construction and operation of the Project. Impacts have been described for road users and also for private landholders and users of Crown Land.

The Project would produce a number of important positive social impacts.

The Project would provide a second crossing of the Murray River and Campaspe River between Echuca and Moama for motorists, pedestrian and cyclists. This would relieve traffic congestion on the existing bridge and in the town centres of Echuca and Moama and improve pedestrian and cyclist connectivity to key destinations including Victoria Park.

The second crossing would also significantly reduce the risks for local and regional communities that are associated with disrupted access across the river (for example in the case of traffic incidents on the existing bridge). Given the interdependence of the townships of Echuca and Moama, including the reliance of residents on essential services located only in Echuca/and or Moama, the additional security provided by the new river crossing is highly valued.

The Project would provide 24-hour border crossing opportunities for oversized commercial vehicles which are currently restricted to designated off-peak crossing times on the existing bridge. This would include vehicular loads that are currently restricted by the height and width limitations of the existing bridge. It would also provide a crossing that is capable of carrying high efficiency High Mass Limit and High Performance Freight vehicles.

The new Murray River bridge also has the potential to become a structure of note, which could potentially contribute to the success of the proposed Bridge Arts Project (subject to technical and financial feasibility).

The construction and operation of the Bridge has the potential to interfere with a number of important social activities which take place in Victoria Park including passive recreation, and local, regional and national sporting events. However, to avoid associated impacts, VicRoads have confirmed that:

- The grass tennis courts that would be impacted by the alignment would be rebuilt in a location to be agreed with Council and the tennis club within Victoria Park, prior to the existing courts being decommissioned;
- Construction would be managed so that important events such as the Easter tennis tournament and Southern 80 ski race occur on the schedules dates without major disruptions to the extent possible;
- VicRoads has been actively involved with the Council in developing a revised Master Plan for Victoria Park and where possible tailored has the project's design to correspond with Council's emerging plans for the Park.

However, it is expected that the boat ramp would be closed at times during construction. In addition, there would some changes to visual and acoustic amenity within Victoria Park during construction and operation which may be perceived to detract from the appeal of the Park for some users, such as those using it for passive recreation, including tennis players and annual site holders within the Echuca Holiday Park.

The Project would not require the compulsory acquisition of any residential dwellings, a rarity on a project of this scale. The Project would require only very limited acquisition of private property, including a residential property in Victoria and a residential property in NSW, though the dwellings on those properties would not be impacted. The residential dwelling adjacent to the Project in Moama may be acquired by agreement between the owner and NSW Roads and Maritime Services.

However, the Project would result in changes to acoustic and visual amenity for some properties located on Warren and Crofton Streets. Residents of these properties may be sensitive to the expected changes.

Social impacts associated with the Project which arise in association with land acquisition and severance would occur when Initial Alignment is developed. Development of the Ultimate Duplication would not produce any additional impacts resulting from land acquisition and severance. Impacts associated with changes to visual and acoustic amenity likewise would be experienced when the Initial Alignment is developed and would not increase materially with the development of the Ultimate Duplication.

Figure 12 Visual representation of bridge approach



# 9.0 References

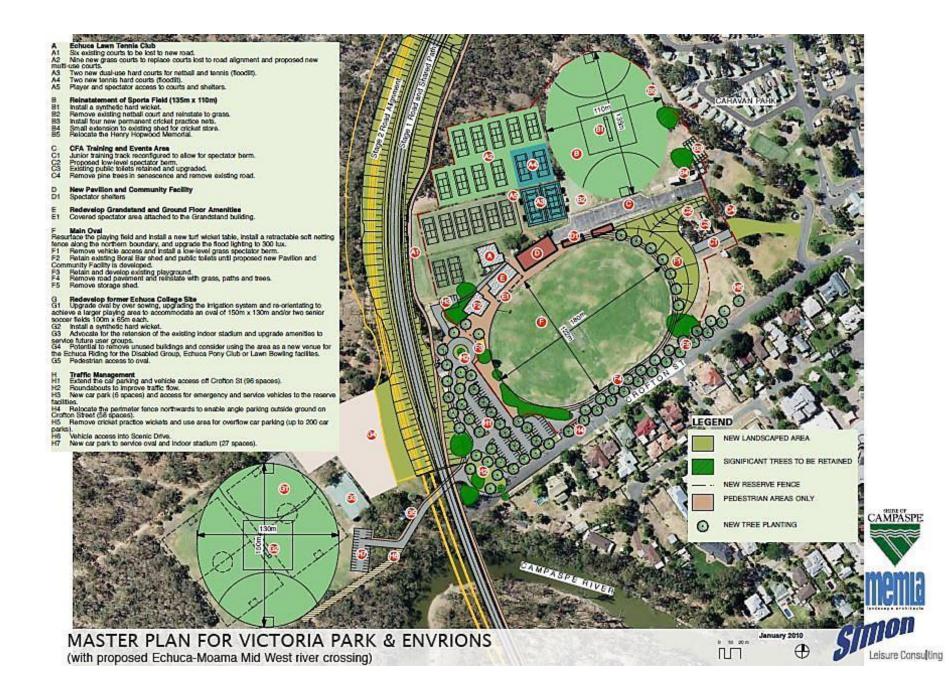
- AECOM. (2012). *Mid-West 2 Corridor Planning Study Social Impact Assessment.* Melbourne: AECOM.
- Beca. (2011). Echuca Housing Strategy. Echuca: Shire of Campaspe Council.
- Brett Lane and Associates. (2011). *Mid-West 2 Murray River Crossing at Echuca-Moama*. Richmond: VicRoads.
- Centrum Planning. (2011). Echuca South East Industrial & Commercial Growth Corridor Land Strategy. Echuca: Shire of Campaspe Council.
- GHD. (2015). Echuca-Moama Bridge Project Planning and Land Use Impact Assessment Report. Melbourne: GHD.
- Keaney Planning. (2014). *Campaspe Planning Scheme Plannign Scheme Review Report 2014.* Echuca: Shire of Campaspe Council.
- MacroPlan Australia. (2009). Moama North West Master Plan. Melbourne: Murray Shire Council.
- Murray Shire Council & StratCorp Consulting. (2008). *Moama Recreation Reserve Plan of Management.* Moama: Murray Shire Council.
- Murray Shire Council. (2010). *Strategic Land Use Plan 2010-2030.* Moama: Murray Shire Council.
- Murray Shire Council. (2011). Murray Local Environment Plan. Moama: Murray Shire Council.
- Murray Shire Council. (2014). Our Region, Towns. Moama: Murray Shire Council.
- NSW Department of Planning. (2009). *Draft Murray Regional Strategy 2009-36.* Dubbo: NSW Department of Planning.
- NSW Government. (1994). *Murray Regional Environment Plan No. 2 Riverine Land.* Sydney: NSW Government.
- NSW Government. (2011). NSW 2021: A Plan to Make NSW Number One. Sydney: NSW Government.
- NSW Government. (2013). NSW Freight and Ports Strategy . Sydney: NSW Government.
- Renzo Tonin & Associates. (2015). Echuca- Moama Bridge Report EES Noise Impact Assessment Report. Melbourne: Renzo Tonin & Associates.
- Rowan, M. (2009). Refining the attribution of significance in social impact assessment, Impact Assessment and Project Appraisal. In *Refining the attribution of significance in social impact assessment, Impact Assessment and Project Appraisal* (pp. 185-191).
- Shire of Campaspe & Simon Leisure Consulting. (2010). *Victoria Park & Environs Master Plan.* Echuca: Shore of Campaspe.
- Shire of Campaspe Council. (2004). Arts and Culture Strategic Plan 2004-2014. Echuca: Shire of Campaspe Council.
- Shire of Campaspe Council. (2007). *Campaspe Walking and Cycling Strategy 2007.* 2007: Shire of Campaspe Council.

- Shire of Campaspe Council. (2010). Access and Inclusion Plan 2010-2013. Echuca: Shire of Campaspe Council.
- Shire of Campaspe Council. (2010). Campaspe Local Floodplain Development Plan Precinct of Echuca. Echuca: Shire of Campaspe Council.
- Shire of Campaspe Council. (2012). *Environment Strategy 2012-2015.* Echuca: Shire of Campaspe Council.
- Shire of Campaspe Council. (2013). *Council Plan 2013-2017.* Echuca: Shire of Campaspe Council.
- Simon Leisure Consulting. (2010). Victoria Park and Environs Master Plan. Caulfield: Shire of Campaspe.
- Spiire. (2015). *Echuca-Moama Bridge EES Landscape and Visual Assessment.* Melbourne: Spiire.
- State of Victoria. (2008). The Victorian Transport Plan. Melbourne: State of Victoria.
- StratCorp Consulting. (2006). *Echuca Moama Recreation Plan.* Sandringham: Murray Shire Council & Shire of Campaspe Council.
- URS. (2009). Detailed Social Impact Study for the Second Murray River Crossing at Echuca-Moama . Melbourne: VicRoads.
- URS. (2011). Second Murray River Crossing at Echuca-Moama Land Use Assessment. Camberwell: URS.
- Van Schooten, M. V. (2003). Conceptualising social change processes and social impacts. *The International Handbook of Social Impact Assessment: Conceptual and Methodological Advances*, 6:74-91.
- Victorian Government. (2010). A Fairer Victoria Real Support Real Gains. Melbourne: Victorian Government.
- Victorian Government. (2013). Securing Victoria's Economy. Melbourne: Victorian Government.
- Victorian Government. (2014). Loddon Mallee North Regional Growth Plan. Melbourne: Victorian Government.
- Victorian Government. (2014). Plan Melbourne. Melbourne: Victorian Government.
- Victorian Government. (2014). Victoria In Future 2014. Melbourne: Victorian Government.

# Appendix A- Consultation Schedule

Group Consulted	Representative	Consultation
Echuca Moama and District Tourism	CEO	Phone Interview 1/10
Echuca Football Netball Club	Club President	Face to face 25/9
C4EM	CEO	Phone Interview 1/10
Echuca Cricket Club (Steve)	Former Board Member	Spoke on phone, Steve had stepped down from board. Provided new email, no reply
Echuca Tennis Club	Club President	Face to face 25/9
Echuca Caravan Park	Current Manager	Face to face 25/9
Bridge Arts Project	Project Spokesperson	Face to Face 26/9

# Appendix B Master Plan for Victoria Park and Environs



#### Echuca Lawn Tennis Club A

#### A1 Six existing courts to be lost to new road.

A2 Nine new grass courts to replace courts lost to road alignment and proposed new multi-use courts.

- A3 Two new dual-use hard courts for netball and tennis (floodlit).
- A4 Two new tennis hard courts (floodlit).
- A5 Player and spectator access to courts and shelters.

#### В Reinstatement of Sports Field (135m x 110m)

- B1 Install a synthetic hard wicket.
- B2 Remove existing netball court and reinstate to grass.
- B3 Install four new permanent cricket practice nets.
- **B4** Small extension to existing shed for cricket store.
- B5 Relocate the Henry Hopwood Memorial.

#### C CFA Training and Events Area

- Junior training track reconfigured to allow for spectator berm.
- C1 C2 Proposed low-level spectator berm.
- C3 Existing public toilets retained and upgraded.
- C4 Remove pine trees in senescence and remove existing road.

#### D New Pavilion and Community Facility

D1 Spectator shelters

#### E Redevelop Grandstand and Ground Floor Amenities

E1 Covered spectator area attached to the Grandstand building.

#### Main Oval

F

Resurface the playing field and install a new turf wicket table, install a retractable soft netting fence along the northern boundary, and upgrade the flood lighting to 300 lux.

- F1 Remove vehicle access and install a low-level grass spectator berm.
- F2 Retain existing Boral Bar shed and public toilets until proposed new Pavilion and Community Facility is developed.

- F3 Retain and develop existing playground.
- F4 Remove road pavement and reinstate with grass, paths and trees.
- F5 Remove storage shed.

#### G Redevelop former Echuca College Site

Upgrade oval by over sowing, upgrading the irrigation system and re-orientating to G1 achieve a larger playing area to accommodate an oval of 150m x 130m and/or two senior soccer fields 100m x 65m each.

G2 Install a synthetic hard wicket.

G3 Advocate for the retension of the existing indoor stadium and upgrade amenities to service future user groups.

G4 Potential to remove unused buildings and consider using the area as a new venue for

- the Echuca Riding for the Disabled Group, Echuca Pony Club or Lawn Bowling facilites.
- G5 Pedestrian access to oval.

#### H Traffic Management

H1 Extend the car parking and vehicle access off Crofton St (96 spaces).

H2 Roundabouts to improve traffic flow.

H3 New car park (6 spaces) and access for emergency and service vehicles to the reserve facilities.

H4 Relocate the perimeter fence northwards to enable angle parking outside ground on Crofton Street (58 spaces).

H5 Remove cricket practice wickets and use area for overflow car parking (up to 200 car parks). H6 \

- Vehicle access into Scenic Drive.
- H7 New car park to service oval and indoor stadium (27 spaces).

# Appendix C Bridge Arts Project 'The Vision'

# THE VISION THE DRAFTING PROCESS

