VicRoads

# Echuca-Moama Bridge Project

# Planning and Land Use Impact Assessment Report

August 2015

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# Glossary of Terms

| Term | Definition |
|---|---|
| 1 in 100 year flood | A flood which results from a storm which has 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. |
| Agriculture | Land used to:<br>a) propagate, cultivate or harvest plants, including cereals, flowers, fruit, seeds, trees, turf, and vegetables;<br>b) keep, breed, board, or train animals, including livestock, and birds; or<br>c) propagate, cultivate, rear, or harvest living resources of the sea or inland waters |
| 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 Project 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. |
| 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. |
| Camping and caravan park | Land used to allow accommodation in caravans, cabins, tents, or the like. |
| Car park | Land used to park motor vehicles. |
| Carriageway | That portion of a road reserve or bridge devoted particularly to the use of vehicles, inclusive of shoulders and auxiliary lanes, such as the two-lane, two-way carriageway in the initial alignment. |
| Chainage | The distance of a point along a control line, measured from a datum point. |
| Clear Zone | An area within the recovery area which is ideally kept clear of hazards (or within which unmovable hazards are shielded). The width of the clear zone reflects the probability of an accident occurring at that location and the cost-effectiveness of removing hazards. The clear zone width is dependent on traffic speeds, road geometry and traffic volume. |
| Concept Design | Initial high-level functional layout of a concept, such as a road or road system, to provide a level of understanding to later establish detailed design parameters. |
| Construction Environmental Management Plan (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 that would be directly impacted by |

| Term | Definition |
|---|---|
| | construction activities. It typically includes areas where vegetation would be removed and could include site compounds and laydown areas, which are outside the proposed road reserve. |
| 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 and Mid-West 2B options) 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 formation level. |
| Cut | The depth from 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. |
| Dwelling | A building used as a self contained residence which must include:<br>a) a kitchen sink;<br>b) food preparation facilities;<br>c) a bath or shower; and<br>d) a closet pan and wash basin.<br>It includes out-buildings and works normal to a dwelling. |
| Earthworks | All operations involved in loosening, removing, depositing, shaping and compacting soil or rock. |
| Environmental Management Framework (EMF) | Outlines the environmental measures recommended to be adopted as part of the EES. |
| Environment | For the purpose of the EES, environment incorporates physical, biological, heritage, cultural, economic and social aspects. |
| Environment Effects Statement (EES) | A statement prepared at the request of the Victorian Minister for Planning, pursuant to the *Victorian Environment Effects Act 1978*, on the potential environment impact of a proposed development. |
| EES Scoping Requirements | The Scoping Requirements under the *Victorian Environment Effects Act 1978* entitled 'The Second Crossing of the Murray River at Echuca Moama', dated June 2014. |
| Fill | One or more of the following:<br>1. The depth from the subgrade level to the natural surface.<br>2. That portion of road where the formation is above the natural surface.<br>3. The material placed in an embankment. |
| Floodway | Land that is identified as carrying active flood flows associated with waterways and open drainage systems. |
| Freehold land | Privately owned land. |
| Gradeline | The level and gradient of a road carriageway along the centreline. |
| Higher Mass Limits (HML) | Allows for higher axle loading for various axle groups in compliance with National accreditation and restricted to specific routes |
| High Productivity Freight Vehicles (HPFV) | Larger combination vehicles such as B triples and super B doubles that are restricted to specific arterial 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 a bridge across each waterway. |
| Intersection | The place at which two or more roads meet or cross. |
| Land use | The type of development existing permitted in an area whether it be 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 other path cycling routes, such as those paths within Victoria |

| Term | Definition |
|---|---|
| | Park. |
| Lot | A part (consisting of one or more pieces) of any land (except a road, a reserve, or common property) shown on a plan, which can be disposed of separately and includes a unit or accessory unit on a registered plan of strata subdivision and a lot or accessory lot on a registered cluster plan. |
| Major Road | A road to which is assigned a permanent priority for traffic movement over that of other roads. |
| Mid-West Option (Preferred Alignment) | The Mid-West Option extends from the Murray Valley Highway along Warren Street before diverting to the northwest where it crosses Campaspe Esplanade and the Campaspe River, then turns north-east to cross the Murray River north of the Victoria Park Boat Ramp. This option then extends north in New South Wales to cross Boundary Road in Moama and connect with the Cobb Highway at Meninya Street. |
| Mid-West 2A Option | The Mid-West 2A Option extends north/northwest on a new alignment from the intersection of the Murray Valley Highway and Warren Street, crosses the Campaspe River north of the Echuca Cemetery, before turning northeast towards Reflection Bend on the Murray River. This option then passes immediately south of Reflection Bend and crosses the Murray River north of the Victoria Park Boat Ramp, then extends north in New South Wales to cross Boundary Road in Moama and connect with the Cobb Highway at Meninya Street. |
| Mid-West 2B Option | The Mid-West 2B Option extends north/northwest on a new alignment from the intersection of the Murray River Highway and Warren Street, crosses the Campaspe River northeast of the Echuca Cemetery, before turning north towards the Echuca Sports and Recreation Reserve. This option 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. |
| Native vegetation | Plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses. |
| 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. |
| Public land manager | The Minister, government department, public authority or municipal council having responsibility for the care or management of public land. In relation to Crown land reserved under an Act and managed or controlled by a committee of management, other than Parks Victoria or a municipal council, it means the Minister administering that Act and does not include the committee of management. |
| Recovery Area | The area beside the traffic lane required for a run-off-road vehicle to stop safely or be brought under control before rejoining the traffic lane. |
| Review of Environmental Factors (REF) | Review of Environmental Factors pursuant to the *Environmental Planning and Assessment Act 1979* (NSW) to assess impacts of the Project in NSW. |
| Right-of-Way | The Right-of-Way is a strip of land that is reserved through a planning scheme amendment and encompasses sufficient land to construct the Project. The Right-of-Way comprises the sealed road surfaces (including shoulders / verges) and a 5-10 metre clear zone either side of the road formation of the ultimate duplication. |
| 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 | Roads and Maritime Services are the co-proponent for the Echuca-Moama Bridge Project. Roads and Maritime are the NSW state |

| Term | Definition |
|---|---|
| Maritime) | government department responsible for the environmental assessment on the NSW component of the Project. |
| Road Reserve | A road reserve is a legally described area within which facilities such as roads, footpaths, and associated features may be constructed for public travel. It is the total area between boundaries shown on a cadastral plan. |
| Roadworks | Roadworks are activities associated with the construction or maintenance of roads. |
| 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 and on Warren Street, which are both three-leg roundabouts. |
| Spill Basins | Engineered basins designed to contain road drainage and spills on the new carriageway, preventing contaminates from entering the floodplain. |
| Service Road | Is designed or developed to be used, wholly or mainly, by traffic servicing adjacent land along Warren Street as part of the Mid-West Option only. |
| 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. The Study Area may be different to the Right-of-Way for some studies, whilst other assessments may limit their Study Area to the Right-of-Way. |
| Super “T” | A type of bridge span construction where the load-bearing structure (usually reinforced concrete) has a T-shaped cross-section. |
| 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. |
| 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. |
| 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 will be constructed when future traffic demand warrants an increase in road capacity. The EES considers the potential impacts of the ultimate duplication. |
| Utility service provider | A person, other than a public authority or municipal council, having responsibility under an Act for the generation, transmission, distribution or supply of electricity, gas, power, telecommunications, water supply, drainage or sewerage services. |
| VicRoads | VicRoads (Roads Corporation) is the co-proponent for the Project. VicRoads is responsible for project management of the planning and will 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. |

# Abbreviations

| Abbreviation | Expanded Term |
|---|---|
| DBYD | Dial Before You Dig |
| DDO3 | Design and Development Overlay – Schedule 3 (Northern and Murray Valley Highways Precinct Echuca) under the CPS |
| DEECD | (Former) Department of Education and Early Childhood Development, now known as Department of Education and Training (DET) |
| DEPI | (Former) Department of Environment and Primary Industries, now known as Department of Environment, Land, Water and Planning (DELWP) |
| DET | Department of Education and Training |
| DTPLI | (Former) Department of Transport Planning and Local Infrastructure, now known as Department of Environment, Land, Water and Planning (DELWP) |
| C2Z | Commercial 2 Zone |
| CEMP | Construction Environmental Management Plan |
| CPS | Campaspe Planning Scheme |
| EES | Environment Effects Statement |
| EIS | Environmental Impact Statement |
| EMF | Environmental Management Framework |
| EP&A Act | *Environmental Planning and Assessment Act 1979* (NSW) |
| EP&A Regulation | *Environmental Planning and Assessment Regulation 2000* (NSW) |
| EPL | Environment Protection Licence |
| ESO | Environmental Significance Overlay |
| FO | Floodway Overlay |
| GRZ | General Residential Zone |
| HML | Higher Mass Limits |
| HPFV | High Productivity Freight Vehicles |
| ISEPP | *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) |
| LSIO | Land Subject to Inundation Overlay |

| Abbreviation | Expanded Term |
|---|---|
| LEP | Local Environment Plan |
| LPPF | Local Planning Policy Framework |
| MREP2 | *Murray Regional Environmental Plan No.2* |
| MSS | Municipal Strategic Statement |
| Murray LEP | Murray Local Environment Plan |
| NSW | New South Wales |
| PAO | Public Acquisition Overlay |
| PCRZ | Public Conservation and Resource Zone |
| POEO Act | *Protection of the Environment Operations Act 1997* |
| PPRZ | Public Park and Recreation Zone |
| PUZ2 | Public Use Zone – Education |
| RDZ1 | Road Zone |
| REF | Review of Environmental Factors |
| RoW | Right-of-Way |
| SEPP | State Environmental Planning Policy |
| SLUP | Murray Shire Strategic Land Use Plan |
| SPPF | State Planning Policy Framework |
| SRD SEPP | *State Environmental Planning Policy (State and Regional Development) 2011* (NSW) |
| UFZ | Urban Floodway Zone |
| Vic | Victoria |
| WMO | Wildfire Management Overlay |

# Executive Summary

VicRoads, in partnership with New South Wales (NSW) 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 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 the EES and the REF.

As part of the EES options assessment, the Mid-West Option was determined to be a superior option within Victoria, and was selected by the Victorian Government as the preferred alignment for detailed risk and impact assessment. The Mid-West Option utilises existing road reserves for part of its length, has the least impact on biodiversity and habitat values and cultural heritage values and satisfies the Project objectives. This report considers the impacts of the Mid-West Option in relation to planning and land use.

This Planning and Land Use Impact Assessment report has been prepared in response to the EES Scoping Requirements (DTPLI,2014) for the Project, and will also be used to support the REF. The assessment included review of previous investigations, consideration of the existing conditions, an options assessment, environmental risk assessment and impact assessment.

The Project would provide significant benefits to transport efficiency, access and connectivity between Moama and Echuca, supporting urban growth to the west of the townships and economic development both within these towns and the surrounding region. The Planning and Land Use Assessment concludes that the Project as a whole is broadly consistent with policy, and would not result in any significant inconsistencies with planning policy, and would not result in any significant changes of land use within the Study Area. Overall the direct property impacts would generally be localised and site specific. Land use and planning related issues would be generally short term and construction related, such as impacts to native vegetation, utility services and amenity impacts, which would be appropriately managed through the implementation of a Construction Environmental Management Plan.

Land acquisition impacts on individual land holdings are limited by virtue of the acquisition generally being located adjacent to existing boundaries or fence lines. The greatest land use impacts due to acquisition in Victoria would be to Victoria Park and former Echuca High School site, due to changes to access and amenity, and the loss of several tennis courts at the Echuca Lawn Tennis Club. The existing Victoria Park Master Plan anticipates the road in this location, and the land use related impacts are therefore considered minimal. In NSW, one particular property at 2 Boundary Road Moama would be subject to land acquisition (approximately 70% of the property would be acquired) which may have a significant impact on its existing residential land use. However, the land could reasonably continue to be used for residential purposes and in the longer term may be considered for alternative use.

Compensation for severance and land acquisition impacts would be provided where appropriate consistent with the *Land Acquisition and Compensation Act 1986* (Vic), and the *Land Acquisition (Just Terms Compensation) Act 1991* (NSW), which provide for the payment of compensation (including disruption costs) for land acquisition.

# 1. Introduction

## 1.1 Project Overview

VicRoads, in partnership with New South Wales (NSW) Roads and Maritime Services (Roads and Maritime), is undertaking planning activities for a second Murray River crossing at Echuca-Moama. The Project, known as the Echuca-Moama Bridge 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 approvals process, the Project was referred to the Victorian Minister for Planning and on 14 June 2013, it was determined an Environment Effects Statement (EES) would be required. As the Project extends into NSW, a Review of Environmental Factors (REF) would be required to assess impacts within New South Wales.

This Planning and Land Use Impact Assessment has been prepared to inform the EES and REF. The EES is required to consider the potential effects of the Project on the environment, 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.

As part of the planning activities for the Project, three alignment options were considered. The options and the options assessment process are outlined in the EES for the Project, and the background information in the overall REF. As part of the options assessment process, the Mid-West Option was identified as a superior option. 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 report is to document the potential planning and land use impacts if the Project were to proceed, and to outline the methodology associated with the assessment, land use and planning related risks (if any) and proposed mitigation for land use impacts of the Project within Victoria and NSW. The report also provides an assessment of the Project's consistency with planning policy.

# 2. Project Description

## 2.1 Project Background

Echuca and Moama are currently linked by a single road bridge across the Murray River with a single carriageway 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 constructed. The nearest alternative road crossings of the Murray River from the existing bridge are at Barham, 86 km to the west, Barmah 36 km to the east, and Tocumwal 120 km to the east.

The existing road bridge and its approaches have inherent safety and operational limitations including its 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 bridge would require lengthy road closures and would be further complicated by heritage constraints.

The existing bridge does not provide a suitable level of service for the increased volume of light vehicle traffic experienced during peak times, typically associated with 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 commenced in 1965. Since then, VicRoads has undertaken 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 EES / Environmental Impact Statement (EIS) study in 2000/2001 whereby a Western Corridor was approved by the Planning Panel;
- Preparation of an Environmental Report in 2010 for a Mid-West corridor (this process was superseded in late 2010 following a change in Government); and
- The current EES process which formally commenced in 2013.

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 Project Description

The Echuca-Moama Bridge 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 approvals processes. As part of the EES (within Victoria), the proposed 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 REF is being prepared to consider the construction impacts of the Project.

The Project comprises a Right-of-Way 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 and Murray River floodplains, as well as changes to existing approach roads.

Construction of the Project will be staged to meet traffic demands and includes the initial alignment and an ultimate duplication. The initial alignment comprises two lanes (a single

carriageway in either direction) and the ultimate duplication, which comprises the two lanes in both directions and duplicated bridges next to the bridges built during the initial alignment.

The Project would require acquisition of land from a number of property owners, including transfers of Crown Land. All land in private ownership would be acquired in accordance with the processes set out in the *Land Acquisition and Compensation Act 1986* (in Victoria) and the *Land Acquisition (Just Terms Compensation) Act 1991* (in NSW). Any temporary construction acquisition and/or leases would be considered during pre-construction planning by the contractor(s).

Existing and future private and public infrastructure and utilities in the vicinity of the Project were considered as part of the design development process. Relocation and/or protection of utilities such as electricity, gas and telecommunications services have been considered in the development of the Project. Consideration of other infrastructure and utilities has been undertaken during the concept design process through consultation with asset owners. In a number of locations, specific provisions and/or adjustment of the road reserve boundary has been undertaken to accommodate these requirements. Ongoing consultation will be undertaken during the detailed design process.

### 2.2.1 Project Objectives

The Project Objectives are to:

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

### 2.2.2 Preferred Alignment

VicRoads undertook an assessment of alignment options based upon the information from previous assessments and existing conditions in the area. The result was the selection of a Preferred Alignment option for consideration by specialists. The alignment, known as the “Mid-West” option was determined to be a better performing option when considering a balance between environmental, social and economic considerations. The alignment is approximately 4.3 km in length and utilises existing road infrastructure along part of Warren Street (Echuca-Cohuna Road), and when compared with other options, has the least amount of vegetation removal and least amount of raised road formation and bridging, impacting on the overall cost of the Project. Refer to the *Echuca-Moama Project EES Main Report* for more details on the assessment of alignment options to support the selection of the Preferred Alignment.

The Preferred Alignment extends from the Murray Valley Highway along Warren Street before diverting to the northwest where it extends to the west of Victoria Park Oval. The Preferred Alignment then turns north-east to cross the Murray River before extending north to connect with the Cobb Highway (refer Figure 1).

More specifically, the Preferred Alignment comprises:

- A new roundabout at the intersection of the Murray Valley Highway;
- Upgrade works along Warren Street, including widening of the road pavement, shoulder sealing, upgrading flood relief structures, line marking and intersection upgrades at Homan Street and Redman Street;
- Construction of a new service road on the western side of Warren Street between Homan Street and Redman Street;
- Line marking for a dedicated right-turn lane for traffic turning into Homan Street;
- Construction of a new 'three-leg' roundabout approximately 120 m south of Campaspe Esplanade;
- Construction of a new road extending north-west from Warren Street and construction of a new bridge across the Campaspe River and Crofton Street;
- Construction of a new road extending north over part of the former Echuca College site and construction of a new road over a slab on the edge of an existing sand hill;
- A new road extending north-east over the western and northern tennis court in Victoria Park and to the north of the Echuca Caravan Park;
- Construction of a new bridge over the Murray River near the existing boat ramp;
- Construction of an elevated road east of the Murray River to connect with a realigned Meninya Street (the existing Cobb Highway) at a new signalised intersection; and
- Signalisation of the intersections at Cobb Highway and Perricoota Road / Francis Street.

The main construction activities associated with the Project would comprise:

- Civil and structural works associated with the construction of new elevated roadway and bridges across the Murray River and the Campaspe River;
- Construction of earthworks and flood relief structures for the new Link Road across the Murray River and Campaspe River floodplains; and
- Improvements to existing roads and intersections on approaches in Victoria and New South Wales, including the construction of a large diameter roundabout at the Murray Valley Highway / Warren Street intersection and traffic signals with Meninya Street and Perricoota Road in Moama.

## 2.3 Study Area

The Study Area (Figure 2) for this Planning and Land Use Impact assessment includes the proposed road reserve of the Mid-West Option (the Preferred Alignment), as well as the area surrounding the proposed Right-of-Way (RoW) that contains various land uses that could be affected by the Project.

This includes consideration of land uses within the immediate area of Echuca and Moama which are within, immediately adjoin, or are located within close proximity to, the proposed road reserve, as well as land use and development within the wider region.

## Figure 1 MidWest Alignment Option

*Source: VicRoads 2014*

LEGEND

Right-of-Way (ultimate duplication)

Local Government Boundary

Paper Size A3

0 3.75 7.5 15 22.5 30

Kilometers

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

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Job Number 31-31941
Revision A
Date 04 Jun 2015

Study Area

Figure 2

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Data source: VicRoads Imagery, VicMap 2014 & NSW Dept. of Planning. Created by:lrsmith

# 3. Existing Conditions

The following section outlines the existing conditions of the RoW and wider Study Area. These are the conditions that would remain under the 'no project' scenario.

## 3.1 Methodology

The assessment of existing conditions relating to Planning and Land Use has been prepared largely by desktop methods, involving review of relevant legislation, policies and strategies. The assessment also involved the review of land titles and aerial photography, provided by VicRoads.

Meetings were also held with strategic planning officers of Campaspe Shire Council and Murray Shire Council on 3 September 2014. The planning officers provided information regarding current and future strategic projects and developments in their respective municipalities. A site inspection was also undertaken on 3 September 2014 to confirm existing land uses and features in the RoW.

Additionally, the following reviews were also undertaken:

- Review of the Second Murray River Crossing at Echuca-Moama Land Use Assessment (URS, 2011)
- Review of aerial photography and site photographs provided by VicRoads
- Review of relevant Victorian and NSW legislation, and State and Local strategic plans or polices, including but not limited to the;
    - *Planning and Environment Act 1987* (Vic)
    - *Land Acquisition and Compensation Act 1986* (Vic)
    - *Environmental Planning and Assessment Act 1979* (NSW)
    - *Plan Melbourne* (2014) *and Loddon Mallee North Regional Growth Plan* (2014)
    - *Campaspe Planning Scheme*
    - *Campaspe Planning Scheme Review* (Keaney Planning, June 2014)
    - *Murray Local Environmental Plan* (2011)
    - NSW State Environment Planning Policies including *State and Regional Development 2011, Infrastructure 2007, and Murray River Environmental Plan No 2 – Riverine Land*
    - *Echuca Housing Strategy 2011*
    - *Echuca South East Industrial & Commercial Growth Corridor Land Strategy* (Campaspe Shire, 2011)
    - *Amendment C86* to the Campaspe Planning Scheme and associated *Panel Report* (4 September 2013)
    - *Amendment C101* to the Campaspe Planning Scheme including Campaspe *Heritage Review 2014* (September 2014)
- A review of a summary of land title/ Crown land status of allotments that are located within the proposed road reserve, as provided by VicRoads (Note: titles / Crown land status reports were not reviewed by GHD in preparing this report)

- Review of Dial Before You Dig (DBYD) information from a search undertaken on 9 September 2014 regarding existing services and utilities, and additional infrastructure information provided by VicRoads.

## 3.2 Regional Land Use Characteristics

The Project is located within the two municipal areas of Campaspe and Murray Shires. Land within Echuca is located within the Shire of Campaspe in Victoria, and land within Moama is located within the Murray Shire in NSW. The Murray River is included within the Murray Shire, the state border being the high water mark on the Victorian side of the River.

The Campaspe Shire, in Victoria, has a population of 36,919 across an area of 4,519 square kilometres (ID, 2014). Echuca is the largest urban centre in Shire of Campaspe with a population in 2011 of 13,652 people. The Murray Shire, in NSW, is home to some 7,312 residents, covers 4,328 square kilometres, and is almost totally surrounded by the Murray River and its tributaries (Murray Shire 2014a). Moama is the Murray Shire's main township and has a close functional relationship with Echuca, the towns collectively known as 'Echuca-Moama'. Echuca provides residents from both townships with employment, facilities and services, and many civic activities.

Positioned on the NSW and Victorian border, and at the closest point of the Murray River to Melbourne, the townships are just two and a half hours by road from Melbourne. The towns have good access to major interstate and state highways. The Northern and Midland Highways provide a direct link to Melbourne and the major regional cities of Bendigo and Shepparton, as well as to the Goulburn Valley, which is one of the most productive agricultural areas in Australia. The Murray Valley Highway provides an east west link along the Victorian/NSW border to Albury Wodonga in the east and Mildura in the west. The Cobb Highway provides a direct link to Deniliquin and southern New South Wales.

The towns lie in the Murray Darling Basin, which extends to the east and west along the Murray River and south to the Great Dividing Range. The region features diverse natural attractions including rivers, wetlands, National parks, popular events like the Riverboats Music Festival and Southern 80 Ski Race, a wide variety of tourism attractions like the Port of Echuca and paddlesteamers, and many restaurants and wineries. Accordingly, the region supports thriving recreational and tourism industries. Tourism is a key industry in the region, and the Shires of Campaspe and Murray work closely with local operators and tourism organisations to continue to develop and promote tourism (Campaspe and Murray Shires, 2014).

The region is also known for its agriculture and food sector, having both rich alluvial soil and leverages the irrigation opportunities presented by the Murray River (Murray Shire, 2014b). The region produces approximately one third of the NSW's grapes, a quarter of its citrus and over half of Australia's rice crop. The region is also home to the third largest vegetable growing area in NSW. Livestock is also important to the region as well as a strong presence in manufacturing and retail. Industries which complement the region's strong agricultural base are an important part of the economy, with major companies such as Heinz Watties, Simplot, Kagome, Cedenco, Fonterra and Murray Goulburn established here. Manufacturing employs 15% of the town's workforce and is the largest export sector for Shire of Campaspe. The region has a progressive business community with proactive business groups such as Committee for Echuca Moama (C4EM), Echuca-Moama and District Tourism and the Murray Business Network (Campaspe and Murray Shires, 2014).

The region has experienced consistent population growth over many years. Echuca-Moama boasts a population in excess of 20,000, which regularly swells with an influx of visitors, particularly during summer holiday periods and major events, such as those mentioned above.

For the year ending December 2013, the Echuca-Moama region received almost 1.4 million visitors who spent over 1.7 million nights in the region (Campaspe and Murray Shires, 2014).

## 3.3 Land Use Characteristics within the Proposed Road Reserve and Surrounding Area

The local area surrounding the proposed road reserve is contained within the townships of Echuca and Moama. The local area and its land use characteristics are described in the following sections. This builds upon and updates the previous investigations as set out in the *Second Murray River Crossing Land Use Assessment* (URS, 2011).

### 3.3.1 Echuca: South and West of the Campaspe River

The western parts of Echuca support a growing residential population, with a number of new residential subdivisions and developments being established west of the Murray Valley Highway (Figure 3). This is supported by the *Echuca Housing Strategy* (Campaspe Shire, 2011) which identifies this area as the major residential growth area for Echuca (refer section 6). This will increase the importance of Warren Street as a connection into the Echuca town centre. A neighbourhood convenience shopping precinct has been identified to service this Echuca West precinct within land zoned for commercial uses along the Murray Valley Highway. This commercial zoning would result in the future development of a highway business area within in which the neighbourhood convenience shopping facility would be integrated. Having been designated as a local activity centre, however at present this land remains largely undeveloped. The area at the intersection of Warren Street and Murray Valley Highway also includes various areas set aside and developed for a range of infrastructure (such as powerlines, gas mains and water mains) to support the existing and growing areas (refer further discussion section 3.6).

On the eastern side of the Murray Valley Highway, south of Warren Street, exists an established residential area of primarily detached housing, Echuca College and a local park. This area has limited direct access from the Murray Valley Highway, including an access point at Elizabeth Street and another at Butcher Street. Several residential properties have vehicle or pedestrian gates to the Murray Valley Highway Road Reserve, however no formal driveway access is provided.

The proposed road reserve would include sufficient land in this area to connect into the existing Murray Valley Highway both north and south of the intersection of Warren Street, and would include parts of the existing road reserve of Mount Terrick Road (also known as Serpentine-Echuca Road). The proposed road reserve would not result in the acquisition of any existing residential properties within this area, but the alignment of the proposed road reserve would extend up to the property boundaries. Whilst not heavily vegetated, the road reserves include a number of large native trees (BL&A, 2015). No pedestrian pathways currently exist on the Murray Valley Highway or Warren Street. Road reserves generally include open grassed drains, and a number of existing infrastructure facilities, including gas mains, water mains, sewers, and overhead powerlines (refer section 3.6).

To the north of the established residential area, east of Murray Valley Highway, is largely undeveloped land with several scattered dwellings. The area is subject to flooding, and Council has confirmed that the floodplain limits its potential for development, a constraint that has resulted in zoning which prohibits further development. This area fronts Warren Street (to the north), with roadside vegetation established along both sides of the Warren Street Road Reserve. The proposed road reserve would contain the existing Warren Street Road Reserve and existing roadside vegetation. Currently there is no formalised access from residences fronting Warren Street, to Warren Street. Homan Street to the south of Warren Street, is an unsealed road, and whilst appears to be a key access point from Warren Street into the

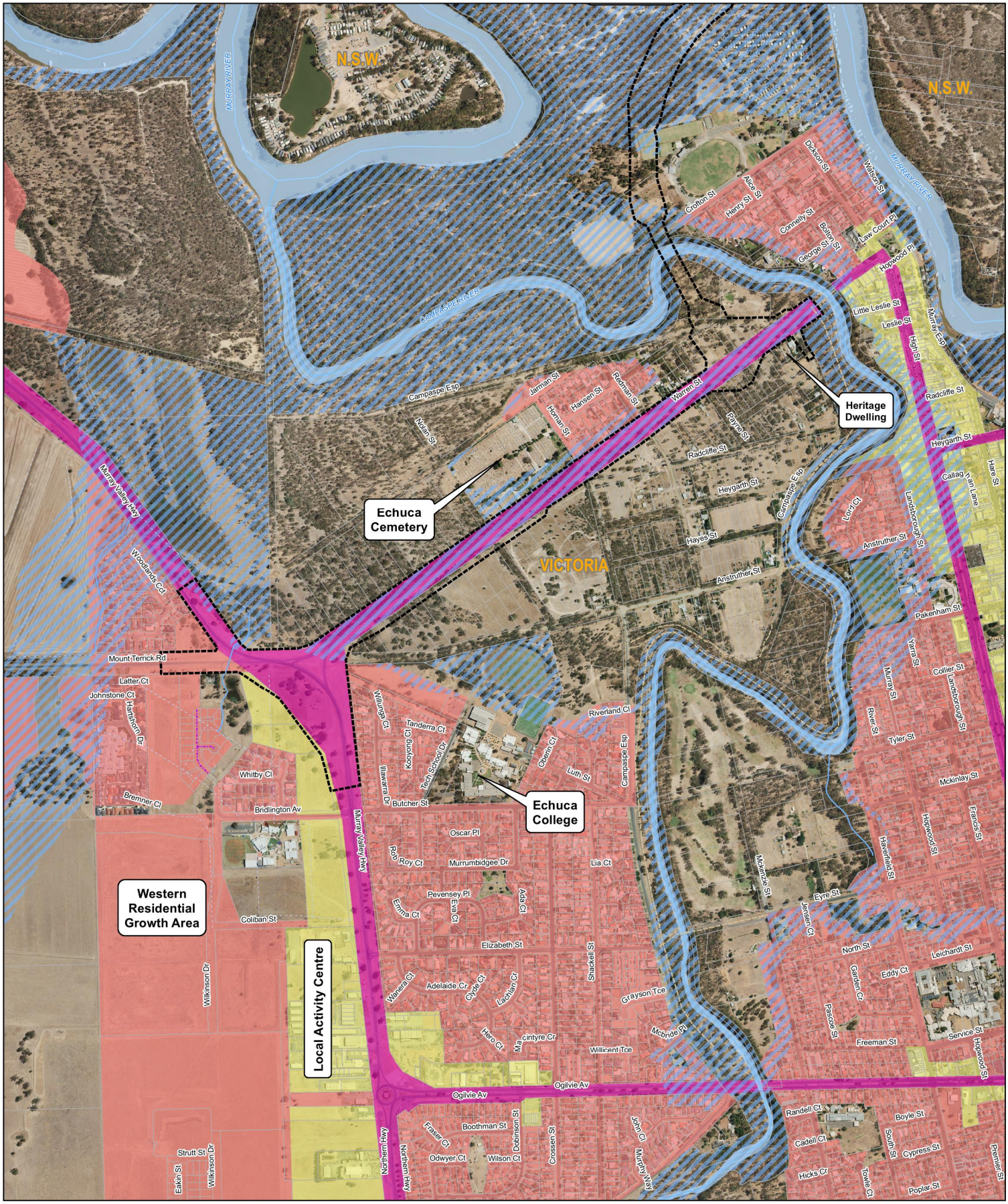
residential areas to the south, Council has no plans to formalise (seal) this road. The proposed road reserve would contain sufficient area to maintain access to these roads.

To the north of Warren Street is the Echuca Cemetery. Established in 1860, there are now over 13,000 burials in the cemetery (Echuca Cemetery Trust, 2014). The Cemetery is managed by the Echuca Cemetery Trust Board – a group of volunteers from within the community, and overseen by the Victorian Department of Health. The cemetery is now nearing capacity and Council has advised that it is currently investigating potential sites for a new cemetery. The cemetery is accessed via Homan Street. The proposed Right-of-Way would utilise the existing Warren Street road reserve but would not result in any land acquisition within the cemetery.

Further east of the cemetery is a small area of residential properties which front Warren Street, and extending back into Jarman and Hansen Streets. There are approximately 30 detached houses within this area on large lots of between 500-1,000 square metres, and surrounded by landscaped gardens with a bushland feel. Whilst it appears that there have been some subdivisions of lots, Council has advised that development within this precinct is generally limited to minor house extensions and other minor works typical of a residential area. The roads within this precinct are generally unsealed gravel roads to service the residential properties. Some Warren Street properties currently have direct access to Warren Street, and others via informal service roads. The proposed road reserve would not include land within these residential allotments, but would extend up to the Warren Street frontage. There is sufficient land within the existing Warren Street road reserve to accommodate a service road to the frontage of these allotments.

North and east of this small residential precinct and the cemetery, to the Campaspe River, is undeveloped bushland subject to flooding and zoned such that further development is prohibited. This area is accessed via Campaspe Esplanade, an unsealed road with a number of informal tracks providing vehicle access throughout the area. It is understood that this precinct is used for a variety of passive recreational activities, primarily walking. The proposed road reserve would include sufficient land through this area to accommodate a bridge north of Warren Street to Crofton Street, across the Campaspe River. The proposed road reserve would also include land within the Warren Street road reserve up to the existing Campaspe River crossing, and include an unsealed parking area and associated access track to the south of Warren Street. It is understood that this parking area is used by people accessing the bushland for walking and other recreational activities.

The dwelling at 279-281 Campaspe Esplanade is covered by a local heritage overlay (HO68). The property directly adjoins the proposed road reserve, with its side boundary bordering Warren Street. However, the proposed road reserve does not extend onto the heritage property itself.




LEGEND

- Right-of-Way (ultimate duplication)
- Rail station
- Railway
- Established Residential Areas
- Major Roads
- Commercial Areas
- Areas Subject to Flooding

Scale 1:10,000 (At A3)

0 50 100 200 300 400

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

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VicRoads
Echuca - Moama Bridge

# Echuca: South & West of the Campaspe River

Job Number 31-31941
Revision A
Date 04 Jun 2015

Figure 3

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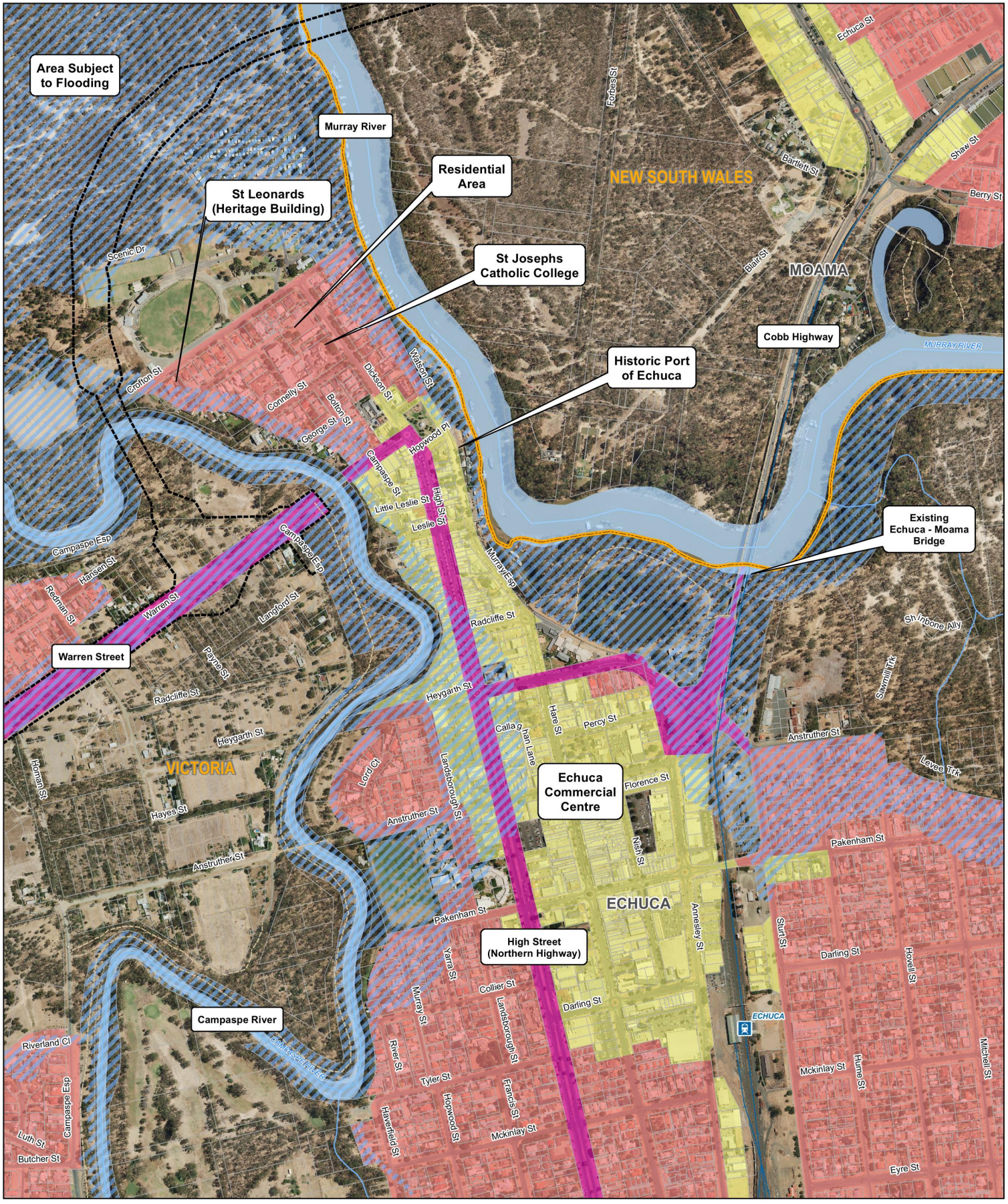
### 3.3.2 Echuca Township: East of the Campaspe River

Between the Campaspe River and the Murray River is the Echuca town centre (Figure 4). Warren Street provides access to this area from the west, via a bridge across the Campaspe River. The commercial town centre is accessed from Warren Street, and then south via High Street. It is the major activity centre of the Echuca-Moama urban area providing a range of business, government and community services. The precinct also includes the historic Port of Echuca, which is located on the Murray River and is the focal point of tourism in the area. The Port of Echuca offers tourists a range of shops, cafes and restaurants.

North of the commercial centre and Port is the northern-most residential area in Echuca, a well-established area consisting primarily of detached residential dwellings. It is accessed via the extension of High Street, known as Dickson Street and extends north to Crofton Street. St Joseph's Catholic College is located within this precinct, and is accessed off Dickson Street and Connelly Street. A number of heritage listed buildings are also located within this area (Heritage Insight, 2015a), including at the western extent adjoining the Campaspe River, an historic two storey dwelling known as 'St Leonards' constructed circa 1858 (33 Crofton Street). The property was recently sold as two separate lots and advertised as a 'property realisation opportunity' and 'allowing potential for part subdivision redevelopment' (Charles L. King & Co. First National – Echuca, 2014). Council advised that there is a current planning permit application to extend the dwelling. The proposed road reserve would include a small section of land from the western extremity of this property including part of the front fence, but would not impact any existing buildings within the site.

East of the Echuca town centre, Heygarth Street connects the Northern Highway to the Cobb Highway, where the existing Echuca-Moama Bridge crosses the Murray River. The existing bridge is the only river crossing for these townships, and comprises a single carriageway 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 constructed immediately to the east of the existing bridge. The nearest alternative road crossings of the Murray River from the existing Echuca-Moama Bridge are at Barham, 86 kilometres to the west, Barmah 36 kilometres to the east, or Tocumwal 120 kilometres to the east. The existing bridge as described in section 2.1 has limited ability to accommodate freight transport and does not provide a suitable level of service for the increased volume of light vehicle traffic experienced during peak times, typically associated with summer tourist events.




LEGEND

- Right-of-Way (ultimate duplication)
- State Boundary
- Rail station
- Railway
- Right-of-Way (ultimate duplication)
- Established Residential Areas
- Major Roads
- Commercial Areas
- Areas Subject to Flooding

Scale 1:7,500 (At A3)

0 35 70 140 210 280

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

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Echuca Township:
East of the Campaspe River

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| Revision | A |
| Date | 04 Jun 2015 |

Figure 4

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### 3.3.3 Victoria Park: North of Crofton Street to the Murray River

The area to the north of Crofton Street (Figure 5) is generally flood affected land, and comprises a range of recreational, sporting facilities and bushland.

Immediately adjoining Crofton Street is Victoria Park. Victoria Park includes various sporting facilities including the Echuca Lawn Tennis Club and Victoria Park Football/Cricket Oval. The main oval is approximately 180 metres long by 122 metres wide and is orientated in an east-west direction. Three synthetic cricket practice wickets are located in the open space area east of the main oval. One netball court and three player's shelters are located adjacent to the western end of the fire brigade training track. The grandstand is a substantial brick building, located on the northern side of the oval. The facilities on the ground level include player change rooms and associated amenities, the umpires' change room and storage. The grandstand has capacity to seat more than 500 spectators. Haw Pavilion is situated in the northwest section of the oval. It is the designated clubrooms for the football and cricket clubs comprising a large social space, kitchen, bar, administration spaces, toilets and storage.

The former Echuca High School is located at the western end of Crofton Street adjacent the Campaspe River. The mid-sized school campus was closed in November 2009 and the site is currently void of any development, the buildings having been demolished. There is some evidence of the school remaining, including the entrance pillars and some basketball courts. The campus is Crown land managed by the Department of Education and Training (DET). The Shire of Campaspe has considered the site as an opportunity to expand the 'footprint' of Victoria Park and for it to become part of a larger sporting and recreation precinct (Victoria Park & Environs Plan, 2008), however it is understood that DEECD has not undertaken any planning for the site, pending the outcomes of this Project. The RoW extends through the eastern extent of this land.

The Tennis Complex is located north of the oval and former Echuca High School site. It is separately managed under Crown land lease. It is a substantial facility comprising 17 lawn tennis courts and dedicated tennis clubrooms. The Courts are split into two banks of courts – six courts on a lower level at the western extent of the complex, and 11 courts on a higher level surrounding the clubrooms. The proposed road reserve would extend through six of the tennis courts at the western extent of the site.

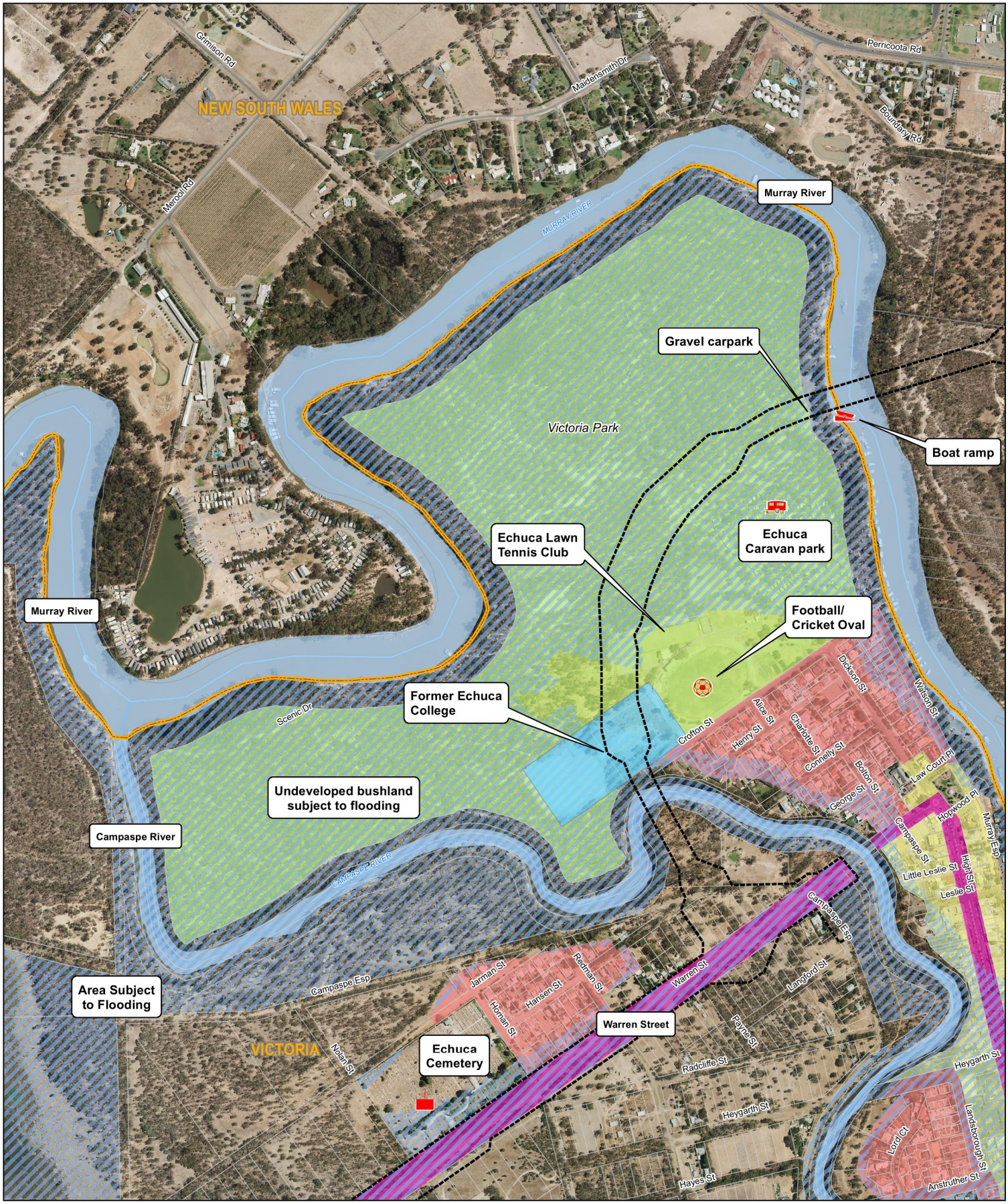
North of the tennis complex is the undeveloped bushland area of Victoria Park. Victoria Park is Crown Reserve land in which the Shire of Campaspe has been appointed Committee of Management under the *Crown Land Reserves Act 1978*. The Council undertakes overall management of the facilities and building maintenance within the park. Victoria Park is open to the general public and consists of numerous walking and bicycle tracks. Council has developed a Masterplan for the Park (Victoria Park & Environs Plan, 2008), which will be further updated pending resolution of this Project. The bushland contains a number of informal unsealed tracks, and is used by walkers and runners, as well as vehicles. The main track which extends around the outer edges of the reserve is known as Scenic Drive. As part of the masterplan, Council would seek to maintain several of the main tracks through the reserve, and discourage vehicles from using other tracks. It is also understood that Campaspe Shire in consultation with the Yorta Yorta Nation Aboriginal Corporation have plans to establish an interpretative walk (Way Finding Project) through the park, as the site has particular cultural significance.

The proposed road reserve would extend through the southern sections of Victoria Park, to the north of the tennis complex and Echuca Caravan Park, which is generally vegetated and otherwise devoid of development. The Echuca Caravan Park is located to the east of the Oval, adjacent to the Murray River. The caravan park is predominantly for tourist use and caters for a variety of casual and permanent accommodation needs, including cabins and tents sites, plus recreation facilities such as a swimming pool, tennis court and a playground. It is understood

that a number of permanent residents occupy the northern-most sites of the caravan park, immediately south of the proposed road reserve.

The proposed road reserve would also impact part of Scenic Drive, which accesses a boat ramp on the banks of the Murray River in the south-east corner of Victoria Park. The proposed road reserve would be located immediately north of the boat ramp, and extend through a large existing unsealed gravel carpark associated with the ramp. The proposed road reserve would also encompass a small public toilet block in the south west of the car park. The car park is heavily utilised during peak tourist events, including the Southern 80 ski race held on the Murray River which concludes just upstream from this location. It is understood that the ski club wishes to establish a clubhouse at this location, however plans for this are on hold pending resolution of this Project.

Approximately 50 metres south of the boat ramp, a number of houseboat moorings commence, continuing south towards the Echuca CBD and Tourist Precinct. The northern-most moorings are occupied by Murray River Safaris and Echuca Boat and Canoe Hire which are tourism companies catering for watercraft hire (such as houseboats) for exploration of the river system. This section of the Murray is heavily utilised for recreational boating, waterskiing, and houseboating. The water frontage on the Victorian banks is Crown land managed by DEPI.




LEGEND

- Right-of-Way (ultimate duplication)
- State Boundary
- Rail station
- Railway
- Established Residential
- Major Roads
- Commercial Areas
- Victoria Park
- Areas Subject to Flooding

Scale 1:7,500 (At A3)

0 35 70 140 210 280

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

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Revision A
Date 04 Jun 2015

Victoria Park:

Figure 5

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### 3.3.4 Moama: East of the Murray River

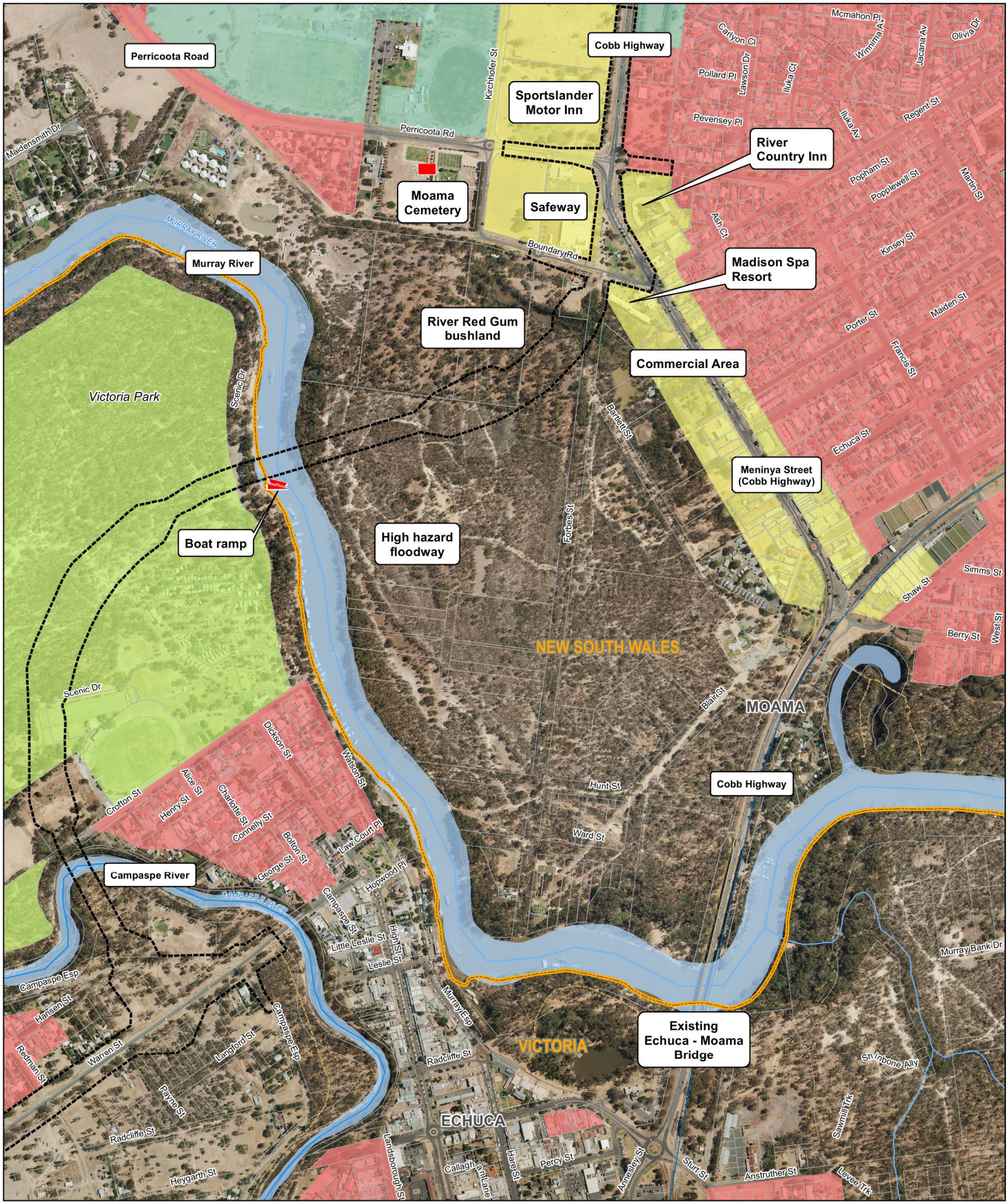
From the Echuca boat ramp in Victoria, the proposed road reserve would extend into NSW across the Murray River (Figure 6). The state boundary is located at the high water mark on the Victorian side of the river. This section of the Murray River is used for a wide range of recreational boating activities including house boating and water skiing as described in section 3.3.3.

A large area of public and private bushland is located across the Murray River east of the Echuca boat ramp (in New South Wales). This area is classified by the Murray Shire as of High Hazard Floodway and accordingly is largely undeveloped. It is understood that the owner of a significant portion of this land has plans to establish a cultural and environmental interpretation tourism facility within the site, and including motor home accommodation at the Boundary Road frontage, however at the time of undertaking this assessment no formal proposals have been put forward for approval, nor has Council indicated any formal support for the project.

The proposed road reserve would pass to the rear of the Madison Spa Resort, a double storey, forty room accommodation facility sited on the corner of Meninya Street and Boundary Road. The rooms to the rear of the second floor overlook River Red Gum bushland within and adjacent to the proposed road reserve. Council has advised that a Conference Centre has recently been approved by Council at the site adjacent the existing Madison Spa Resort. A detached residential dwelling is located to the west of the spa resort, and a large proportion of its land allotment is located within the proposed Right-of-Way.

The proposed road reserve would extend through these bushland areas, and would avoid existing buildings near Boundary Road.

The existing Murray River bridge crossing connects with the southern extent of Moama, and Meninya Street (Cobb Highway). Meninya Street is the main street and includes a number of commercial and retail businesses. As the Echuca town centre provides many retail and services to the area, the Moama town centre is smaller, serving more local needs than regional needs.




LEGEND

- Right-of-Way (ultimate duplication)
- State Boundary
- Rail station
- Railway
- Victoria Park
- Public Recreation
- Established Residential Areas
- Commercial Area

Scale 1:7,500 (At A3)

0 35 70 140 210 280

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

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Echuca - Moama Bridge

Moama:
East of Murray River

| | |
|---|---|
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| Revision | A |
| Date | 04 Jun 2015 |

Figure 6

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### 3.3.5 Moama: Perricoota Road and north western Growth Areas

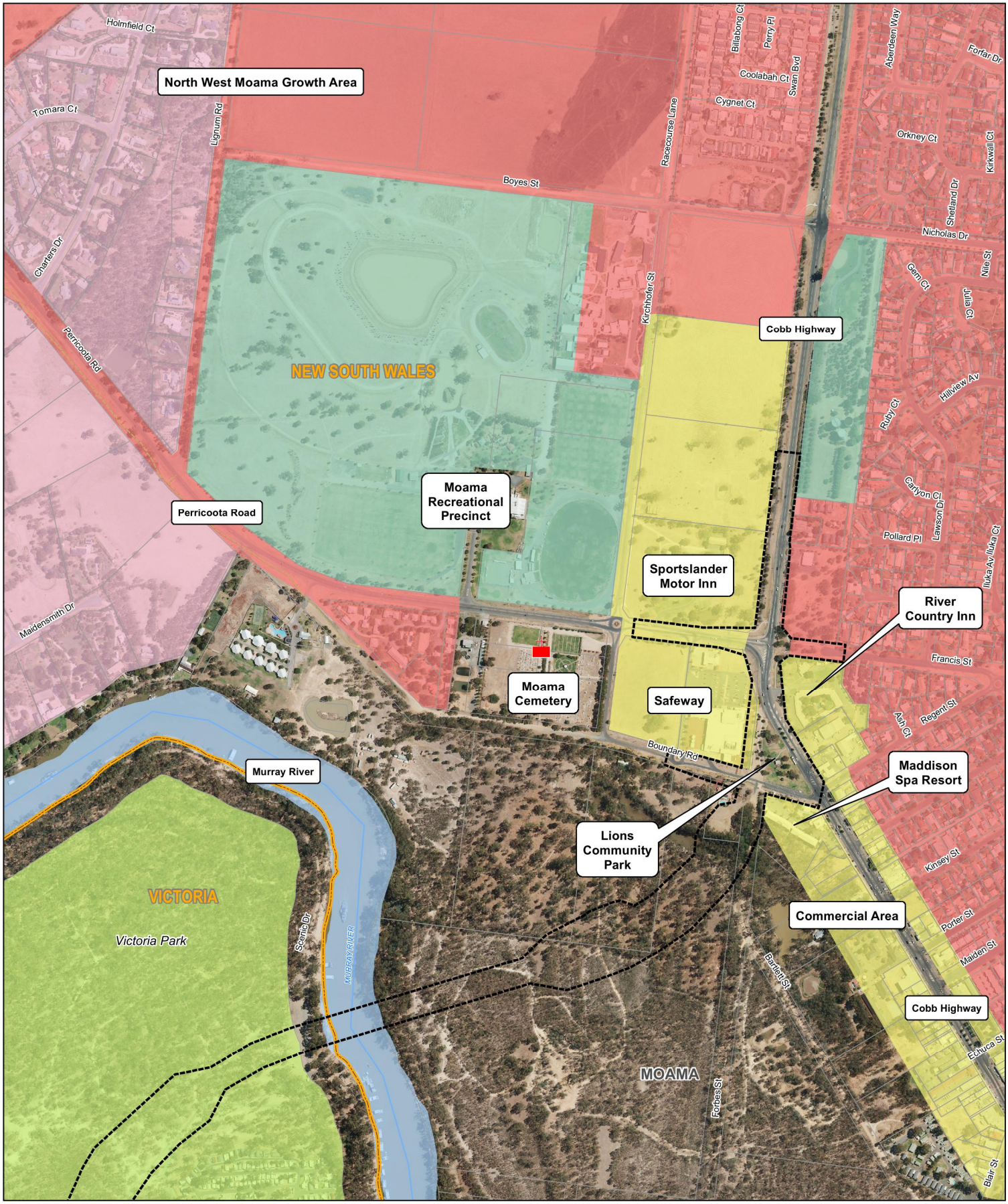
To the north of Boundary Road is a Safeway supermarket and Caltex petrol station (Figure 7). The supermarket fronts Perricoota Road, with public car parking located in front of the building and accessed via Perricoota Road, and with rear access for delivery vehicles provided via Boundary Road. An unsealed section of Forbes Street passes to the east of the supermarket site, and further east (bounded by Cobb Highway, Boundary Road and Forbes Street) is a Lions Community park including picnic tables, shelters, barbeques, and a playground. The proposed road reserve would include the road reserve of Forbes Street, passing between the supermarket and the Lions Community Park. This area includes various infrastructure, including powerlines, Telstra cables, and gas mains (refer section 3.6).

Across the Cobb Highway on the southeast corner of Francis Street is the River Country Inn. This motel is currently accessed via Cobb Highway and the proposed road reserve would include landscaped areas along this frontage. Francis Street is currently closed to traffic access to Cobb Highway. The proposed road reserve would include the landscaped area which currently acts as the physical barrier, and the Project includes reopening of Francis Street to provide a vehicle connection to the Cobb Highway.

The Sportslander Motor Inn is located on the northwest corner of Cobb Highway and Pericoota Road, with access from Pericoota Road. Perricoota Road provides access to the Moama Recreational precinct and the northwest growth areas of Moama. The Moama recreational precinct includes a number of sporting facilities for football, soccer, cycling, athletics, netball, touch football, and golf. The precinct also includes a school and the botanic gardens. The precinct is of a high standard and fulfils a regional function for Echuca-Moama, hosting events of up to 4,000 people.

The North West Moama growth area includes a number of recent subdivisions and newly developed detached housing. Land in this area was historically used for agricultural purposes such as viticulture, poultry farming, dryland cropping and grazing, but was recognised as future residential land by the *Moama Strategic Land Use Plan 2006-2030* (Macroplan Australia, 2009).

Meninya Street (Cobb Highway), is the main activity centre for the Moama township. It primarily services local needs, with Echuca serving a more regional role. Further east, to the east of Meninya Street (Cobb Highway), is a predominantly residential area comprising low scale detached housing.




LEGEND

- Right-of-Way (ultimate duplication)
- State Boundary
- Rail station
- Railway
- Victoria Park
- Public Recreation Areas
- Large Residential Lots
- Established Residential Areas
- Commercial Areas

Scale 1:6,000 (At A3)

0 25 50 100 150 200 250

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

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# Moama: Perricoota Road and North West Growth Area

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Revision A
Date 04 Jun 2015

Figure 7

G:\31\31941\GIS\Maps\Working\Impact Assessment Report\3131941_015_Fig7_MoamaNW_GrowthArea_A3P.mxd 180 Lonsdale Street Melbourne VIC 3000 Australia T 61 3 8687 8000 F 61 3 8687 8111 E melmail@ghd.com W www.ghd.com

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## 3.4 Future Land Use and Development

### 3.4.1 Applications

A number of planning permit applications and strategic plans /amendments are also relevant to consideration of the Project and this land use assessment. They are briefly outlined below.

Campaspe Shire Council has recently issued a permit for the use and development of land for a telecommunications facility at 28 Warren Street. The site, which is currently vacant, is located to the north-east of Campaspe Esplanade and proximate to the preferred alignment.

Council Officers have advised that a planning permit application has been submitted to extend the dwelling at St Leonard's Homestead on Crofton Street. At the time of preparing this report (December 2014) a decision had not been made on the application. There were no other planning permit applications that were considered by Council to be of relevance to the Project at the time of this assessment.

At the time of preparing this assessment, it was also understood that there were no applications being considered by Murray Shire Council for development within or in close proximity to the proposed road reserve in Moama. However, as mentioned in section 3.3 it is understood that the owner of a significant portion of floodprone land north of the Murray River (through which the proposed road reserve would traverse) intends to establish a cultural and environmental interpretation tourism facility on this property, however no formal proposal has been put forward for approval at this time. In addition, a planning permit application has recently been approved to construct a conference centre at the Maddison Spa Resort, however at the time of this assessment construction had not yet commenced.

### 3.4.2 Amendments

Proposed Amendment C101 to the Campaspe Planning Scheme proposes to apply the Heritage Overlay to a number of identified heritage precincts and individual places across the municipality (primarily those that were identified in the *Campaspe Shire Heritage Gaps Study, 2005*). The amendment also proposes to rectify a number of mapping anomalies that exist in the current heritage overlay mapping. Proposed Amendment C101 was exhibited from 29 January 2015 to 2 April 2015. A directions hearing has been scheduled for the week commencing 15 June 2015, and a panel hearing has been scheduled for the week commencing 13 July 2015. As part of the Proposed Amendment C101, it is proposed to extend two heritage overlays – one covering the Murray Pines (HO79), and one covering St Leonard's homestead (HO41). These changes would result in the Heritage Overlay affecting land in the proposed road reserve.

VicRoads made a submission to the proposed Amendment C101 on the 18th of February 2015. The submission summarised conclusions drawn by Heritage Concepts and Brett Lane and Associates in regards to the proposed extension of HO41 and HO79.

Heritage Insights identified that all of the historic structures and most of the vegetation at St Leonards Homestead (HO41) had either been substantially modified or removed and that on visual inspection there were no historic structures within the alignment.

Brett Lane and Associates identified in excess of 500 Murray Pines in the vicinity of the sandhill, 77 of which are likely to pre-date European settlement. It was determined that if HO79 is extended it would cross into the proposed RoW and cover 13 trees likely to pre-date European settlement. Heritage Insights identified that the removal of these 13 trees would only have a minor heritage impact.

On the advice of these consultants VicRoads recommended that the boundaries for the proposed Amendment C101 match the proposed RoW for the Mid-West option and that the proposed Amendment acknowledges the proposed RoW.

### 3.4.3 Future Proposals and Strategic Planning

Discussions have also occurred with the Minister for Environment and DEPI staff about the potential construction of a clubhouse near the boat ramp on the Murray River for the Club Marine Southern 80 Water Ski Race Inc (as discussed in section 3.3). However, it is understood that no formal application for the development of the Ski club has been submitted by the Moama Water Sports Club, and that this is likely to be resolved upon confirmation of the alignment and outcomes of this Project.

A large industrial growth area is identified to the southeast of Echuca along the Melbourne-Murray River Railway, as set out in the *Echuca South East Industrial & Commercial Growth Corridor Land Strategy* (Campaspe Shire, 2011), and is reflected in the Echuca South East Structure Plan at Clause 21.04 of the Campaspe Planning Scheme. Whilst currently remaining largely farmland, this area will further build upon the existing food industry precinct south of Mitchell Road and the Echuca Aerodrome.

Echuca has substantial residential growth potential to the west. It is estimated that the land that is currently zoned for urban development could accommodate close to 550 conventional lots. Medium density development is encouraged in the Campaspe Planning Scheme for new residential areas. Residential development forecasts assume the number of dwellings in Echuca West will increase by an average of 36 dwellings per annum to 3,065 in 2036.

The North West Moama growth area was recognised as future residential land by the *Moama Strategic Land Use Plan 2006-2030* (Macroplan Australia, 2009). It is intended that this growth area, bordered by Pericoota road to the south east, Martin Road to the north and the Cobb Highway to the east, will provide residential land to cater for population growth as well as other uses that fulfil land holder needs and aspirations (such as open space and a local activity centre) (Macroplan Australia, 2009).

## 3.5 Current Land Tenure within the Proposed Road Reserve

A summary of the land title and Crown land status of allotments within the proposed extent of the road reserve was supplied by VicRoads, and has been reviewed as outlined in this section. The majority of land within the proposed road reserve is already road reserve for which VicRoads and Roads and Maritime are the responsible authorities.

### 3.5.1 Crown Land

The proposed road reserve would comprise a substantial amount of existing Crown land, which is predominately reserved for recreational purposes (Figure 8). The existing use, land manager and reserve purpose of the Crown land within the Project Area are outlined in Table 1.

**Table 1 Crown Land within the Project Area**

| Land Description | Existing Use | Land Manager | Reserve Purpose |
|---|---|---|---|
| **Victoria** | | | |
| CA 10 Sec E1 T/Echuca P/Wharparilla<br>CA 13 Sec A T/Echuca P/Wharparilla<br>CA 12 Sec A T/Echuca P/Wharparilla<br>CA 11 Sec A T/Echuca P/Wharparilla<br>CA 10 Sec A T/Echuca P/Wharparilla<br>CA 9 Sec A T/Echuca P/Wharparilla | Flood prone land on Warren Street | DEPI | Unreserved Crown Land |

| Land Description | Existing Use | Land Manager | Reserve Purpose |
|---|---|---|---|
| CA 8 Sec A T/Echuca P/Wharparilla<br>CA 7 Sec A T/Echuca P/Wharparilla<br>CA 6 Sec A T/Echuca P/Wharparilla<br>CA 18 Sec K T/Echuca P/Wharparilla<br>CA 15 Sec C1 T/Echuca P/Wharparilla | | | |
| CA 5 Sec C Echuca(T) Wharparilla(P) | Flood prone land on Warren Street | DEPI | Unreserved Crown Land |
| CA 4 Sec B T/Echuca P/Wharparilla<br>CA 3 Sec B T/Echuca P/Wharparilla | Public Recreation (area in proximity to Campaspe Esplanade) | Campaspe Shire (Committee of Management) | Public Recreation and Plantation Reserve |
| CA 2B Sec A1 T/Echuca P/Wharparilla<br>CA 7A Sec 1 T/Echuca P/Echuca North | Campaspe River frontage | DEPI and Campaspe Shire | Permanent River Frontage Reserve |
| CA 6C Sec 1 T/Echuca P/Echuca North<br>CA 6E Sec 1 T/Echuca P/Echuca North<br>CA 6F Sec 1 T/Echuca P/Echuca North<br>CA 6D Sec 1 T/Echuca P/Echuca North | Former Echuca High School site | DEECD | Reserved Crown land for Echuca High School |
| CA 7B Sec 1 T/Echuca P/Echuca North | Victoria Park | Campaspe Shire | Victoria Park Camping and Public Recreation Reserve |
| CA 6A Sec 1 T/Echuca P/Echuca North | Echuca Lawn Tennis Club | Leased to Echuca Lawn Tennis Club | Crown land leased for recreation purposes |
| CA 7A Sec 1 T/Echuca P/Echuca North | Murray River Frontage (Victoria) | DEPI | Permanent River Frontage Reserve |
| **NSW** | | | |
| n/a | Murray River | Murray-Darling Basin Commission | Murray River |

### 3.5.2 Freehold Land

There are a number of parcels of freehold land within the proposed road reserve, particularly along the southern side of Warren Street, Echuca, in Victoria (Figure 8). A few of these land owners hold multiple adjoining allotments within this area. In total, 15 freehold properties and 12 Crown land properties would be affected by the proposed road reserve (27 properties across 51 allotments). The proposed road reserve would only traverse a small number of freehold properties on the NSW side of the border (six properties, on seven allotments).

A parcel of land owned by the Coliban Region Water Authority is located in proximity to the proposed roundabout at Warren St, on the Murray Valley Highway. The Safeway site is in a single corporate ownership in Moama.

## 3.6 Existing Infrastructure within the Right of Way

### 3.6.1 Physical Infrastructure

A review of existing services was undertaken based on available data and a Dial Before You Dig (DBYD) search undertaken on 9 September 2014. This assessment provides only a high level overview of existing physical infrastructure based on the data available at the time of reporting. A detailed services search would need to be undertaken as part of the detailed design and prior to construction.

As illustrated in Figure 9, there are a number of infrastructure assets located within the proposed road reserve (Appendix A provides a more detailed Mapbook of infrastructure). The majority of existing infrastructure is located at the south western end of the proposed road reserve at the location of the proposed roundabout, connecting Warren Street to the Murray Valley Highway. However, minor utilities infrastructure including electrical and communication transmission lines are located throughout the proposed road reserve. A brief summary of utilities infrastructure is provided below.

#### *Sewer/Wastewater*

Refer to Infrastructure Mapbook in Appendix A.

The Terrik Road Sewer Pump Station is located within close proximity to the proposed road reserve, on the southern side of Mt Terrick Road in proximity to the junction of Mt Terrick Road and the Murray Valley Highway. Stormwater Drainage Channels and a storm water retention basin are also located in this area.

Underground sewerage pipelines run through the proposed road reserve, within the existing road reserves of Mt Terrick Road, the Murray Valley Highway and Warren Street. Sewerage pipelines do no run the length of Warren Street, however cross Warren Street in proximity to the Murray Valley Highway and at the intersections of Warren Street and Redmond Street/Homan Street and in proximity to Crofton Street.

For the most part, the underground water mains run in proximity to the sewerage pipelines. However, underground water mains are also located within the proposed road reserve, along the length of Warren Street from Redmond Street, into Echuca.

Stormwater pipelines extend into the proposed road reserve in Moama. They traverse the Cobb Highway, Boundary Road and Perricoota Road at a number of locations.

#### *Gas*

Refer to Infrastructure Mapbook in Appendix A.

A distribution gas main is located within the proposed road reserve, extending along the western side of the Murray Valley Highway, in the vicinity of Warren Street. The distribution main crosses the proposed road reserve at the intersection of the Murray Valley Highway and Mt Terrick Road, continuing along the eastern side of the Murray Valley Highway.

A gas main is also located within the proposed road reserve in Moama. It extends along the eastern side of the Cobb Highway, and then crosses the road reserve at Perricoota Road, continuing along the northern side of Perricoota Road and the western side of the Cobb Highway.

#### *Electrical Transmission*

Refer to Infrastructure Mapbook in Appendix A.

Overhead powerlines and associated electrical powerpoles are present within the proposed road reserve. They run along the eastern side of the Murray Valley Highway, extending through the southernmost section of the proposed road reserve, across Warren Street.

The powerlines continue along the northern side of Mt Terrick Road and the north western side of Warren Street. The powerlines traverse Warren Street and enter private property on the south eastern side of Warren Street until Redmond Street, before crossing back into the proposed road reserve and once again continuing down the north western side of Warren Street into Echuca.

Powerlines also cross into the proposed road reserve in proximity to Crofton Street.

In Moama overhead powerlines extend through the proposed road reserve on the northern side of Boundary Road, the eastern side of the Cobb Highway and the southern side of Perricoota Road. The powerlines traverse the Cobb Highway at the intersections of both Boundary and Perricoota Road.

### *Communications*

Refer to Infrastructure Mapbook in Appendix A.

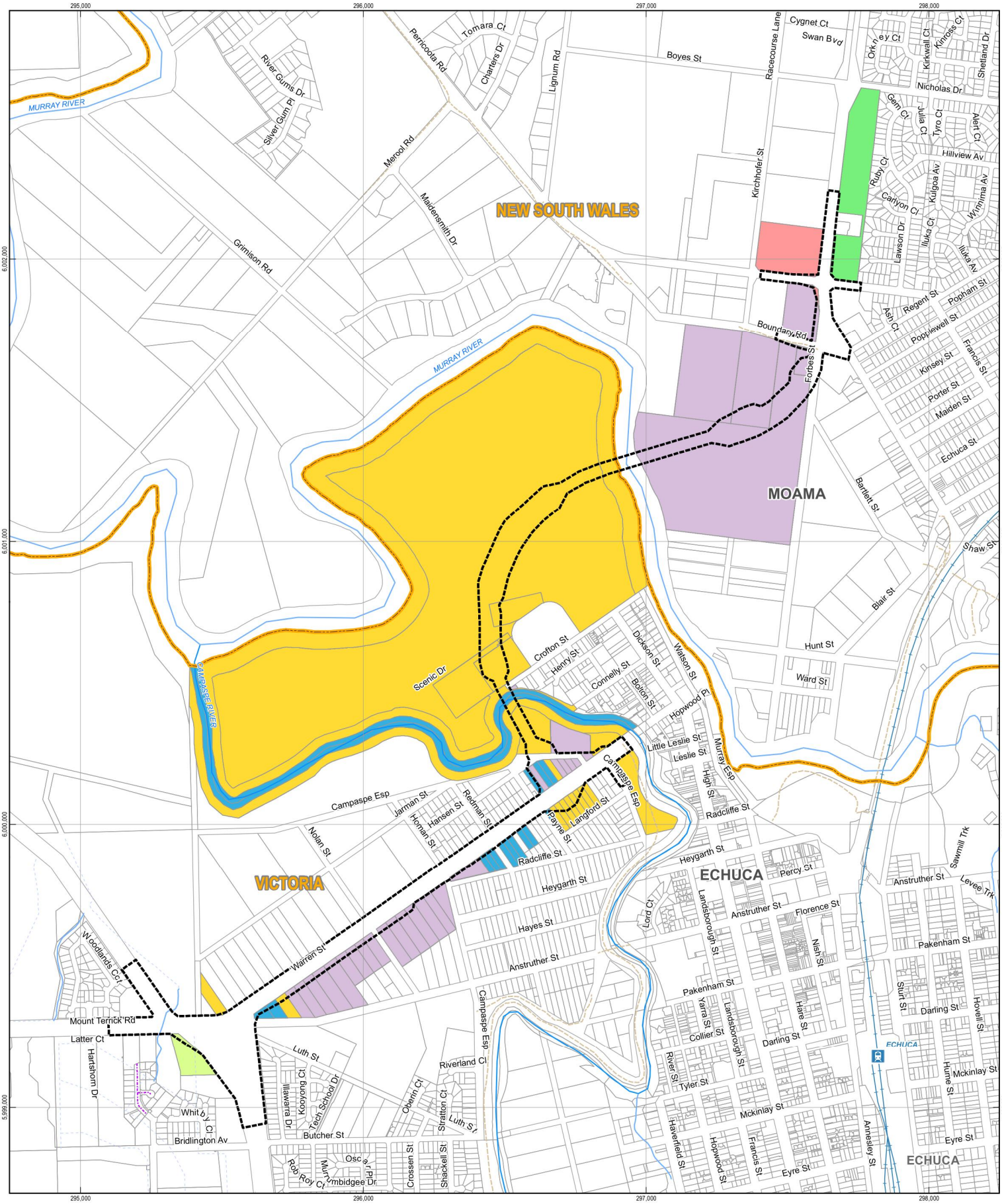
Existing telecommunication lines are located within the proposed road reserve. They extend along the western side of the Murray Valley Highway, in the vicinity of Warren Street, and then continue along the northern side of Mt Terrick Road, and the north eastern side of the Murray Valley Highway.

Telecommunication lines traverse Warren Street at a number of locations, then from the intersection of Redman Street continue north east along Warren Street. The proposed road reserve is also traversed by a telecommunication line in proximity to Crofton Street.

In Moama, the telecommunication lines extend along the southern side of Boundary Road, the eastern side of the Cobb Highway and the northern side of Perricoota Road. They traverse the Cobb Highway at the intersection of Perricoota Road.

### *Community Infrastructure*

The presence of schools, hospitals and other health services, recreation and community infrastructure within the Project area are outlined in the *Social Impact Assessment Report* (AECOM, 2015) which has been undertaken for the Project.




LEGEND

- Right-of-Way (ultimate duplication)
- State Boundary
- Rail station
- Railway
- Cadastre Boundaries

**Land Tenure of Impacted Properties**

- Campaspe Shire
- Coliban Water
- Crown Land
- Murray Shire Council
- Private
- Other

Scale 1:12,500 (At A3)

0 60 120 240 360 480

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

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Land Tenure

| | |
|---|---|
| Job Number | 31-31941 |
| Revision | A |
| Date | 04 Jun 2015 |

Figure 8



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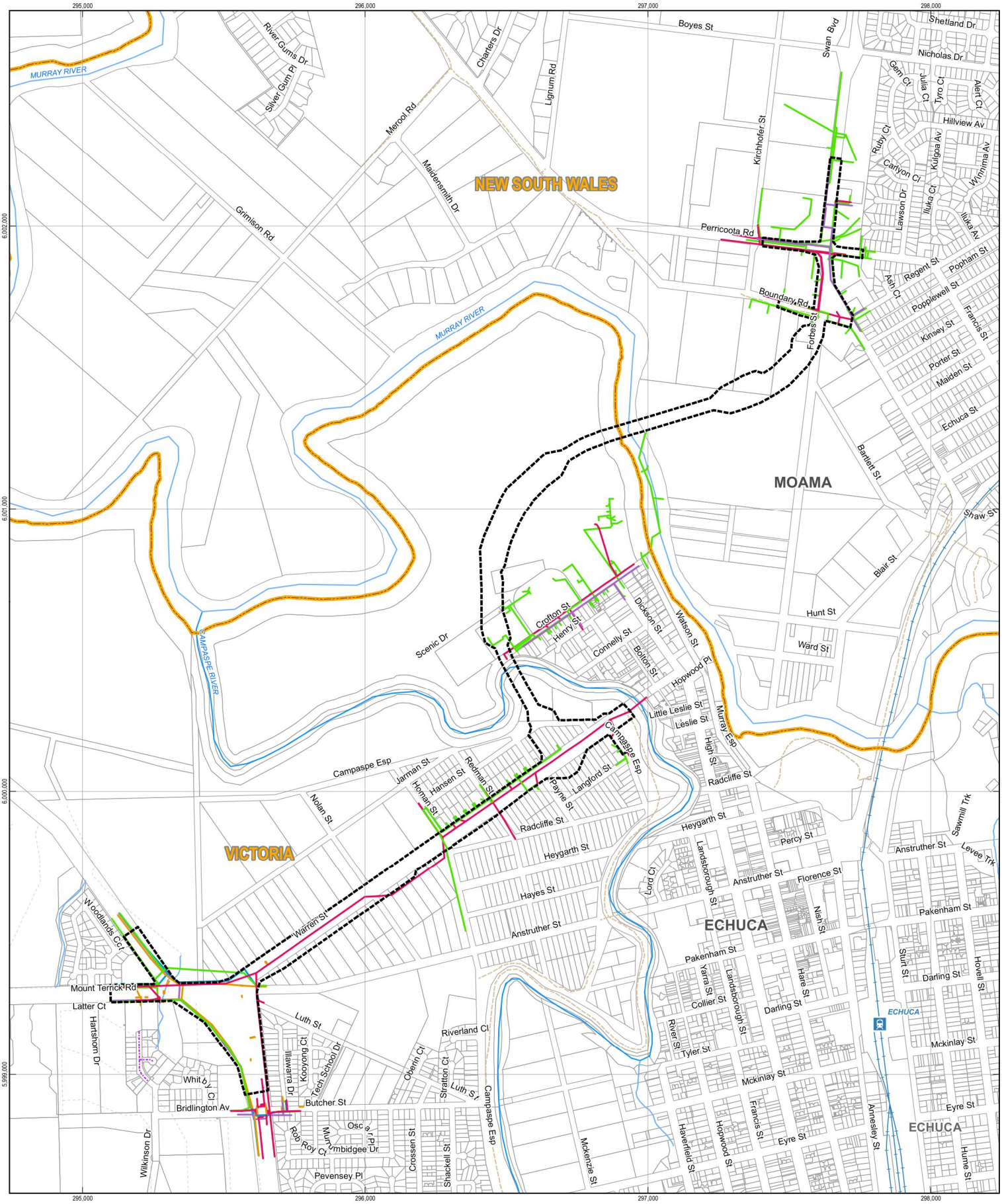


LEGEND

- State Boundary
- Rail station
- Railway
- Right-of-Way (ultimate duplication)

**Indicative Infrastructure Services**

- Electricity
- Gas
- Sewerage
- Telecommunications
- Water

Scale 1:12,500 (At A3)

0 60 120 240 360 480

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

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| | |
|---|---|
| Job Number | 31-31941 |
| Revision | A |
| Date | 04 Jun 2015 |

# Infrastructure Overview Map

Figure 9

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Data source: VicRoads, VicMap 2014, DBYD & NSW Dept of Planning. Created by:lrsmith

# 4. EES Scoping Requirements

## 4.1 EES Evaluation Objectives

For the planning and land use aspects of the Echuca-Moama Bridge Project, the relevant draft EES Evaluation Objective as outlined in the EES Scoping Requirements is:

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

## 4.2 EES Scoping Requirements

The EES scoping requirements specific to the scope of this planning and land use impact assessment are as follows:

### Key issues for objective

- *The potential for the Project to unreasonably impact on 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 and resulting residual effects.*

Some of these matters have been addressed separately with the Social Impact Assessment for the EES (AECOM, 2015)

## 4.3 REF Requirements

It is understood that there the Project REF guidelines require similar consideration of land use matters, including the existing environment, policy settings, potential impacts, safeguards and mitigation measures.

# 5. Legislation, Polices and Guidelines

As part of the Planning and Land Use Impact Assessment for the Project, it has been necessary to review and consider any relevant legislation, policies or guidelines that apply. Accordingly, this section identifies the relevant planning legislation and policy that are relevant to the Project.

## 5.1 Victorian Legislation, Policies and Guidelines

### 5.1.1 Planning and Environment Act 1987 (Vic)

The *Planning and Environment Act 1987* (Vic) (the Act) establishes a framework for planning the use, development and protection of land in Victoria in the present and long-term interests of all Victorians.

The Act sets out the following objectives for planning in Victoria:

- *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 interest of all Victorians.*

The Act provides for a single instrument of planning control, the planning scheme, which sets out the way in which land may be used or developed. The planning scheme is a legal document, prepared and approved under the Act.

#### *Campaspe Planning Scheme*

A planning scheme sets out objectives, policies and provisions relating to the use, development, protection and conservation of land in the area to which is applies. A planning scheme regulates the use and development of land through planning provisions designed to achieve those objectives and policies.

In this instance, the Campaspe Planning Scheme is relevant to the Project Area on the Victorian side of the Murray River. The policies and strategies of the Planning Scheme as relevant to this Project are outlined in detail in section 6 of this report.

### 5.1.2 Land Acquisition and Compensation Act 1986 (Vic)

The process under which freehold land can be compulsorily acquired is set out in the *Land Acquisition and Compensation Act 1986* (Vic). Under the *Land Acquisition and Compensation Act,* land required for a public purpose can be acquired by State Government Departments and Agencies. Acquisition can be done either compulsorily or by negotiation. The *Land Acquisition and Compensation Act 1986* provides:

- The procedures for the compulsory or negotiated acquisition of land; and
- The procedures for the determination of compensation.

### 5.1.3 Other Victorian State Legislation

The planning schemes, in setting out policy covering a range of social, economic, heritage and environmental matters, refer to a range of other legislation and approvals. Land use and development within Victoria is also controlled by other related legislation including:

- *Aboriginal Heritage Act 2006*
- *Catchment and Land Protection Act 1994*
- *Crown Land (Reserves) Act 1978*
- *Environment Protection Act 1970*
- *Flora and Fauna Guarantee Act 1998*
- *Heritage Act 1995*
- *Land Act 1958*
- Transport Integration Act 2010
- Wildlife Act 1975.

Under these Acts, a number of policies, strategies and guidelines have been developed to manage impact on land, the environment and heritage. Policies, strategies and guidelines considered to be relevant to this Project have been identified and considered as part of other specialist technical assessments prepared for the EES as appropriate. Where other project approvals are required under the listed Acts, these are outlined in the EES document.

### 5.1.4 Victorian and Regional Policies and Guidelines

The following State and Regional strategic land use policies are relevant to the Project:

- *Plan Melbourne* (Victorian Government, 2014)
- *Loddon Mallee North Regional Growth Plan* (Victorian Government, 2014)

These, and their relevance to the Study Area, are considered in detail in section 6.1 of this report.

### 5.1.5 Echuca Local Policies and Guidelines

In addition to the State and regional strategies and policies outlined in section 5.1.4, the Shire of Campaspe has several local strategies and policies of relevance to the Project:

- *Echuca Housing Strategy* (Campaspe Shire, 2011)
- *Echuca South East Industrial & Commercial Growth Corridor Land Strategy* (Campaspe Shire, 2011)
- *Victoria Park and Environs Master Plan* (Campaspe Shire, 2010)

- The *Campaspe Planning Scheme Review Report* (Campaspe Shire, 2014)
- *Echuca Draft Open Space Strategy* (Campaspe Shire, 2014)

These, and their relevance to the Study Area, are considered in detail in section 6.1 of this report. The Echuca Housing Strategy and the Echuca South East Industrial & Commercial Growth Corridor Land Strategy were recently implemented via Planning Scheme Amendment C86 to the Campaspe Planning Scheme. The Victoria Park and Environs Master Plan does not form part of the Campaspe Planning Scheme.

## 5.2 NSW Legislation, Policies and Guidelines

### 5.2.1 Environmental Planning and Assessment Act 1979

Development in NSW is assessed in accordance with the provisions of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation). The EP&A Act institutes a system for environmental assessment, including approvals and environmental impact assessment for proposed developments. The EP&A Act contains three parts that impose requirements for planning approval:

- Part 4 provides for control of 'local development' that requires development consent from the local Council. State significant development is also assessed under Part 4 (Division 4.1).
- Part 5 provides for control of 'activities' that do not require approval or development consent under Part 4.
- Part 5.1 provides for control of State significant infrastructure.

The need or otherwise for development control is set out in environmental planning instruments – State Environmental Planning Policies (SEPPs), Regional Environmental Plans or Local Environmental Plans (LEPs).

As outlined in Section 6.2.5 the NSW components of the Project is permissible without consent and will therefore is assessed under Part 5 of the EP&A Act. The appropriate form of environmental impact assessment to be performed as required by Part 5 of the NSW EP&A Act is a Review of Environmental Factors (REF).

A REF is required if the determining authority considers that the Project is unlikely to have a significant impact on the environment. If a determining authority decides the Project is likely to significantly affect the environment, it must prepare an environmental impact statement and seek approval from the Minister for Planning and Infrastructure. Furthermore, if the Project were to be carried out on land that is critical habitat, or if the determining authority decides the Project is likely to significantly affect a threatened species, population or ecological community or its habitat, then it must prepare a species impact statement.

As the Project is considered unlikely to have a significant impact on the environment; a REF will be prepared for the component of the Project which is located in NSW. The need for a species impact statement is considered unlikely; however Roads and Maritime Services are currently undertaking further investigation into the Squirrel Glider population in Echuca-Moama to determine if a Species Impact Statement is required for the Project. The investigation will assess local habitat conditions to inform a detailed mitigation strategy, including a crossing strategy, to provide safe access for the species over the proposed carriageway and Murray River. Any mitigation and monitoring recommendations resulting from the study and adopted by Roads and Maritime Services would be implemented in both states. The development of the REF would be undertaken in parallel to the EES documentation to obtain approval for works in

NSW. NSW Roads and Maritime Services will exhibit and determine the REF for the NSW components of the project.

Factors that need to be taken into account when considering the likely impact of an 'activity' on the environment are outlined in clause 228 of the EP&A Regulation, these would be addressed as part of the future REF.

#### *State Environment Planning Policies and Local Environmental Plans*

While the Act provides the overarching structure for planning in NSW, there are a number of other legal documents to support that structure. The two most commonly used and referred to legal documents are:

- **State Environmental Planning Policies (SEPPs)**. There are a number of State policies which outline the NSW Government's approach to dealing with more specific planning issues. State policies are frequently created and updated. Relevant SEPPs include:
  - *State and Regional Development 2011*
  - *Infrastructure 2007*
  - *Murray River Environmental Plan No 2 – Riverine Land*
- **Local Environmental Plans (LEPs)**. Each local government area has an LEP to guide development and protect natural resources such as waterways and heritage within local government areas. LEPs are prepared by local councils. In this instance, the Project is partly located within the Shire of Murray and the LEP relevant to this Project is the Murray Local Environmental Plan 1989. It is noted that for this Project, the LEP provisions do not apply, as development consent is not required, but they will be considered during preparation of the REF.

These are considered within greater detail in section 6 of this report.

### 5.2.2 Other New South Wales State Legislation

Land use and development within NSW is also controlled by other related legislation including but not limited to:

- *Catchment Management Authorities Act 2003*
- *Heritage Act 1977*
- *Natural Resources Commission Act 2003*
- *Protection of the Environment Administration Act 1991*
- *Soil Conservation Act 1999*
- *Water Act 1912.*

Under these Acts, a number of policies, strategies and guidelines have been developed to manage impact on land, the environment and heritage. Policies, strategies and guidelines considered to be relevant to this Project have been identified and considered as part of other specialist technical assessments prepared for the REF as appropriate. Where other project approvals are required under the listed Acts, these are outlined in the REF document.

### 5.2.3 NSW Policies and Guidelines

The following NSW State and regional strategic policies are relevant to the Project:

- *Draft Murray Regional Strategy 2009-2036*

This Strategy and its relevance to the Study Area are considered in detail in section 6.2 of this report.

### 5.2.4 Moama Local Planning Policies

In addition to the State and regional strategies and policies outlined in section 5.2.3, the Shire of Murray has several local strategies and policies of relevance to the Project:

- *Moama Recreation Reserve Plan of Management 2008*
- *Moama North West Master Plan 2009*
- *Murray Shire Strategic Land Use Plan 2010-2030*

These policies and their relevance to the Project are considered in detail in section 6.2 of this report.

# 6. Consistency with Planning Policy

The *EES Scoping Requirements* (DTPLI, 2014) require that the EES "*evaluate the consistency of the Project against the policies and provisions of the Campaspe Planning Scheme and other relevant land use planning strategies*."

Accordingly, this section provides a summary of the relevant planning policies, provisions and strategies identified in section 5 of this report, and makes an assessment of the Project's consistency with relevant policy objectives.

In particular, this assessment considers the Campaspe Planning Scheme, administered by the Campaspe Shire Council in Victoria, and the Murray Local Environmental Plan 1989, administered by the Murray Shire Council in NSW.

## 6.1 Victorian Planning Policies

This section considers those State and local policies relevant to the Project, and how the Project supports or impacts on the objectives of those policies.

### 6.1.1 Plan Melbourne and Loddon Mallee North Regional Growth Plan

The Loddon Mallee North Regional Growth Plan (Victorian Government, May 2014) sets out a regional approach to land use planning across the five municipalities of Buloke, Campaspe, Gannawarra, Mildura and Swan Hill. The plan identifies opportunities to encourage and accommodate growth and address challenges over the next 30 years. The Regional Growth Plan, has been aligned with other regional growth plans and the new metropolitan planning strategy, *Plan Melbourne*, in a way that builds on the interdependence of urban settlements and facilitates their development as a networked 'state of cities'.

Initiative 6.4.2 of Plan Melbourne is to "*Strengthen transport links on national networks for the movement of goods between regional cities, Melbourne, interstate, and internationally*", which the Project would assist in facilitating.

One of the key land use planning directions in the Loddon Mallee North Regional Growth Plan is to '*support road, rail and logistics upgrades to improve economic growth and accessibility'.* Specifically in relation to the Project, the Plan states,

*"Murray River bridge crossings are an essential part of the transport network. There are cross-border communities that rely on access to goods, services, education and employment on the other side of the river. Murray River crossings are also important for supporting the national freight network. Planning is currently underway for upgrades to Murray River crossings, including sequenced construction of new bridges at Echuca, Swan Hill and Yarrawonga, with the initial priority at Echuca. These crossings are a key priority over the medium to long term outlined in Victoria's 2012 submission to Infrastructure Australia."*

The Plan also notes that the Project would assist in meeting some of the other strategic directions including the need to strengthen and improve access to local settlements and improve the local economy.

The Project would provide an alternative route (to the Northern Highway) across the Murray River, which would increase freight efficiency and local movement between towns and cities within Victoria and NSW. With the plan identifying the dependence of Echuca's economy on primary production, safe and efficient network linkages are vital for interstate and state wide movement of produce. Additionally, the Project would enhance local access between Echuca, which has been identified as a regional centre, and Moama. The Project would also improve access from new residential developments (west of Echuca and north/west of Moama) as well

as from existing residential areas to services, employment opportunities, recreational facilities, education facilities and developing industrial areas in both municipalities. Further, it would reduce through traffic from the existing Murray River Crossing, increasing accessibility for local and tourist traffic between the Town Centres of Echuca and Moama.

The Project would provide a vital link between Echuca and Moama and more broadly Victoria and NSW, which would contribute to the facilitation of one of the key land use strategies in the Loddon Mallee North Regional Shire Plan of '*aligning economic and population growth with urban settlement, industry, services and infrastructure'.*

### 6.1.2 Echuca Housing Strategy

The *Echuca Housing Strategy* (Beca, March 2011) provides guidance for the future direction for housing supply in Echuca. It sets out a framework to manage expansion of new residential growth to the west of the Northern Highway through multiple growth "frontiers"; and encourages an increase in housing choice and diversity. The strategy also sets out strategy to encourage infill housing and regeneration in selected established areas.

A key objective of the strategy is to ensure that '*neighbourhoods have good access to services and facilities'*.

At times, the existing Murray River crossing (particularly in peak periods) constrains local access to services and facilities within Echuca and Moama. Increased population growth within these towns is likely to exacerbate this problem. The Project which would provide a second Murray River crossing to the west of Echuca (in the vicinity of new residential growth areas) would increase local access to services, employment opportunities and facilities in both Echuca and Moama. Further, it would remove through traffic (including freight traffic) from the existing crossing, enhancing local access to those in the established residential areas of both Echuca and Moama.

### 6.1.3 Echuca South East Industrial & Commercial Growth Corridor Land Strategy

The *Echuca South East Industrial and Commercial Growth Corridor Land Strategy* (January 2011) provides a vision for the future development of a 1,125 hectare industrial precinct to the south east of Echuca. The Strategy identifies areas of land for the long term (20-30 year) development of large, medium and small scale industries and structure plans to guide their development. The South East Industrial & Commercial Growth Corridor is located approximately 1.8 kilometres to the south east of the Echuca town centre, and is generally bounded by Service Street and Ogilvie Avenue to the north, Rowe Road to the south, Mary Anne Road to the east and the Melbourne and Murray River Railway to the west.

An objective of this strategy is 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'.*

While Echuca currently enjoys good access to major interstate and state highways, access to/from the south east industrial growth corridor via the Cobb Highway from NSW is limited with vehicle load and size restrictions on the existing Murray River Bridge crossing.

The Project would create an alternative Murray River crossing without restrictions. This would potentially increase the appeal of the Industrial and Commercial growth corridor due to improved freight efficiencies between Victoria and NSW.

### 6.1.4 Victoria Park and Environs Master Plan

The *Victoria Park and Environs Master Plan* ("Master Plan") was originally endorsed in 2006, however, was subsequently amended in 2010 to address the proposed second Murray River Crossing. In light of this significant planning matter, a review was undertaken of the Master Plan to investigate the implications and opportunities that may arise for Victoria Park and the immediate surround area from the development of a second bridge crossing over the Murray.

The key purpose of the draft Master Plan is to guide the future development and use of the Park to ensure appropriate facilities are provided to meet the current and future recreational and sporting needs of the community. The Plan includes consideration of potential impacts of the Project, and goes so far as to include the proposed road reserve within the Master Plan. The Master Plan also recommends development of an oval and other recreational facilities in the west of the former Echuca High School site.

Since 2010, the former Echuca High School buildings have been demolished, and the Master Plan requires updating. Campaspe Shire Council is waiting on confirmation of the location of the second Murray Bridge crossing prior to further updating the Master Plan, and in this way, the outcomes of the Project will impact on the future management and development of Victoria Park. Notwithstanding this, it is considered that the alignment of the proposed road reserve is generally in accordance with that shown in the Master Plan and it is considered that the Project is therefore consistent.

Figure 10 Victoria Park and Environs Master Plan, August 2010

Source: *Victoria Park and Environs Master Plan* (2010)

### 6.1.5 Campaspe Open Space Strategy

Campaspe Shire Council is in the process of finalising their Open Space Strategy (2014). One of the key strategies outlined within the draft is *'improving the Quality and Access of Open Spaces'.*

The undeveloped and currently unused flood prone land on Warren St has been highlighted as an area for potential open space. Recommended Action #4.5 in the draft strategy is to '*Establish a long term plan for development and management of flood plain land to the south of Warren Street (Echuca) focusing on the area as a key gateway/entry given the development of the second bridge crossing.'*

The Project is commensurate with this Strategy, with the alignment being taken into consideration during the drafting of the document. Additionally, its operation, which would see increased traffic pass the area, could lead to opportunities for the development of a rest stop and park which could be used by both locals and visitors.

### 6.1.6 State Planning Policy Framework

Every planning scheme in Victoria includes the State Planning Policy Framework (SPPF). The SPPF consists of general principles for land use and development in Victoria as well as specific objectives and strategies. The following section provides an overview of the objectives and strategies within the SPPF, which are of particular relevance to the Project. The SPPF principles and policies considered particularly relevant to this project are summarised below in Table 2.

**Table 2 Victorian State Planning Policies**

| Principle | Objectives | Compliance of the Project |
|---|---|---|
| Clause 11<br><br>Settlement | *Planning is to anticipate and respond to the needs of existing and future communities through provisions of zoned and serviced land for housing, employment, recreation and open space, commercial and community facilities and infrastructure.*<br><br>*Planning is required to recognise the need for, and as far as practicable contribute towards: Health and safety, diversity of choice….A high standard of design and amenity. Prevention of pollution to land, water and air and protection of environmentally sensitive areas and natural resources.* | The Project will assist in promoting Echuca as a Regional Centre, increasing transport linkages between Echuca and Moama as well as between other cities and centres within Victoria and NSW (Clause 11.05-1 and Clause 11.05-4).<br><br>Further, the provision of an additional Murray River Crossing would further enhance regional Victoria's competitive advantage by enhancing the capacity of major transport infrastructure (in particular highways). It would also provide a major transport corridor in a regional centre, which would maximise the access and mobility of the community (Clause 11.05-4).<br><br>As part of this EES a number of assessments were undertaken and mitigation measures proposed to ensure the quality of the environment would be maintained and enhanced by managing development impacts, and by avoiding development impacts on land that contains high biodiversity values, landscape amenity, water conservation values, cultural heritage and recreation values, assets and recognised uses (Clause 11.05-4).<br><br>Clause 11.11 Loddon Mallee North Regional Growth Plan and its relevant subclauses seek to align population and economic growth. The Loddon Mallee North Regional Growth Plan |

| Principle | Objectives | Compliance of the Project |
|---|---|---|
| | | (Victorian Government, 2014) guides planning in this region (refer discussion section 6.1.1). In particular this policy under Clause 11.11 supports the Project in that it supports investment in infrastructure, freight and logistics.<br><br>In addition, Clause 11.11-5 requires that authorities "plan for and facilitate growth of Echuca … as [a]regional centres and important tourism destinations while considering population change and settlement planning in New South Wales", and Clause 11.11-6 includes a strategy to "Support stronger relationships between the region and communities of interest in southern New South Wales, South Australia and adjoining Victorian regions." The Project directly supports these policy directions. |
| Clause 12<br><br>Environmental and Landscape Values | *Planning should help to protect the health of ecological systems and the biodiversity they support (including ecosystems, habitats, species and genetic diversity) and conserve areas with identified environmental and landscape values.*<br><br>*Planning should protect sites and features of nature conservation, biodiversity, geological or landscape value.* | Clause 12 contains a number of specific strategies that seek to protect and enhance biodiversity, and significant environments and landscapes. Many of the issues outlined in the strategies and polices contained within this Clause have been either directly or indirectly addressed within various specialist technical assessments being undertaken for the Project.<br><br>The *Specialist Landscape and Visual Impact Assessment* (Spiire, 2015) considered the potential landscape and visual impacts of the Project. The assessment concluded that while most impacts could be minimized through the implementation of mitigation measures, there would still be a moderate visual and landscape impact on Victoria Park, and a high visual impact and moderate-high landscape impact on the Murray River 10 years post mitigation. These impacts would only be able to be mitigated to some degree through replanting of vegetation where possible within the road reserve, and by ensuring that noise attenuation design and materials are congruous with the existing surrounding environment.<br><br>The *Biodiversity and Habitat Impact Assessment* (BLA, 2015) report concludes that the Project would have a range of impacts on native vegetation, fauna habitat and other biodiversity values as a result of construction and ongoing operation. However it also |

| Principle | Objectives | Compliance of the Project |
|---|---|---|
| | | concludes that these would generally be at a local scale, and that significant regional consequences are not anticipated. It proposes a number of measures to be applied during construction and to the design to minimise or avoid further impact. Impacts to biodiversity and habitat can be mitigated to between negligible and medium risk levels through the implementation of the recommended management measures outlined in the report, with most impacts able to be mitigated to a low risk level. |
| Clause 13<br><br>Environmental Risks | *Planning should adopt a best practice environmental management and risk management approach which aims to avoid or minimise environmental degradation and hazards. Planning should identify and manage the potential for the environment, and environmental changes, to impact upon the economic, environmental or social well-being of society.* | Clause 13 contains a number of strategies relating to floodplain management, soil degradation, noise abatement and air quality. The issues identified within these policies have been addressed within specialist technical assessment being undertaken for the Project.<br><br>The *Specialist Hydrology Report* (Cardno, 2015) considers potential flooding related impacts of the project and the requirements of the North Central Catchment Management Authority. It concludes that overall, the flood impacts would be mitigated back to existing flood levels and the flood behaviour is not significantly altered across the floodplain consistent with this policy. The predicted impacts of the proposed alignment meet legislative requirements. The project is expected to have minor flood impacts. In addition it notes that the project would provide a second flood evacuation route up to the 100 year ARI event for the main township of Echuca, and provide increased flood protection of Warren Street through additional culverts and mitigation structures which would reduce the frequency of the road overtopping<br><br>The *Soils and Geology Impact Assessment Report* (VicRoads, 2015) addresses the potential effects of erosion, consistent with the policy described in Clause 13.03-2 and conclude that with mitigation only minimal erosion should occur and would not be considered a significant impact.<br><br>The *Noise Impact Assessment Report* (Renzo Tonin & Assoc, 2015) has recommended mitigation measures to comply with VicRoads Noise Policy to assist the control of noise |

| Principle | Objectives | Compliance of the Project |
|---|---|---|
| | | effects on sensitive land uses consistent with the policy objective of Clause 13.04-1. |
| Clause 14<br><br>Natural Resource Management | *Planning is to assist in the conservation and wise use of natural resources including energy, water, land, stone and minerals to support both environmental quality and sustainable development.* | The Project is proposed in proximity to both the Murray and Campaspe Rivers and is located within an important water catchment. To minimise the impact on water quality and the waterway itself, as well as protect the environmental qualities of the waterways a surface water risk assessment has been undertaken as part of the Project (Clause 14.02-1 and Clause 14.02-2). The issues identified in these policies have been addressed either directly or indirectly within the technical specialist assessments for the Project.<br><br>The *Soils and Geology Impact Assessment Report* (VicRoads, 2015) addresses the potential effects of sediment generation, consistent with the policy described in Clause 14.02-1, and concludes that with mitigation, the potential of sediment generation post construction would only affect surface water and be temporal in nature (i.e. during a high intensity rainfall event) and low scale.<br><br>The *Specialist Hydrology Report* also addresses water quality and concludes that the project achieves the requirements of SEPP and EPA guidelines and the environmental management controls proposed meet and exceed legislative requirements and are in-line with best practice. Water quality during construction would be managed through the incorporation of sedimentation basins to contain runoff events any spill on the road, consistent with this policy. |
| Clause 15<br><br>Built Environment and Heritage | *Planning should ensure all new land use and development appropriately responds to its landscape, valued built form and cultural context, and protects places and sites with significant heritage, architectural, aesthetic, scientific and cultural value.*<br><br>*Creating quality built environments supports the social, cultural, economic and environmental wellbeing of our communities, cities and towns.*<br><br>*Land use and development planning must support the development and maintenance of* | Numerous studies have been undertaken as part of the Project to ensure (to the maximum extent possible) that the Project promotes safety, protects landmarks, views and vistas and heritage in the surrounding urban areas (Clause 15.01-2).<br><br>Aboriginal and historic cultural heritage assessments have been undertaken as part of the Project to ensure the conservation of places of heritage and Aboriginal heritage significance (Clause 15.03). The *Report on an Archaeological Survey for Historic Cultural* |

| Principle | Objectives | Compliance of the Project |
|---|---|---|
| | *communities with adequate and safe physical and social environments for their residents, through the appropriate location of uses and development and quality of urban design.*<br><br>*Planning should achieve high quality urban design and architecture.* | *Heritage* (Heritage Insight, 2015a) found that the project poses little risk to historic cultural heritage and that mitigation measures can be put in place to manage any potential impacts. Further information on heritage values is detailed in the *Report on an Archaeological Survey for Historic Cultural Heritage*.<br><br>The Project has been designed in close consultation with the Yorta Yorta Nations, to ensure that impacts on Aboriginal heritage are minimised. The *Report on Assessment for Aboriginal Cultural Heritage Values* (Aboriginal cultural heritage report, Heritage Insight, 2015b) concludes that he project avoids impacts to the majority of Aboriginal scarred trees located in previous assessments. Mitigation measures for the remaining trees ensure that impacts are avoided in most cases. The project minimises impacts on the sensitive area of the sandhill.<br><br>The strategy at Clause 15.01-1 states "Ensure transport corridors integrate land use planning, urban design and transport planning and are developed and managed with particular attention to urban design aspects."<br><br>The *Visual and Landscape Impact Assessment* (Spiire, 2015) addressed this policy and used it in order to ascertain the landscape planning objective of their study. An assessment of the Project against the policy concluded that there would be a high impact on the scenic amenity, cultural and natural heritage and recreational values of the Murray River and Victoria Park. However, the assessment identified the impacts could be mitigated through (amongst other things) design measures and vegetation reinstatement measures. |
| Clause 16<br><br>Housing | *Planning should provide for housing diversity, and ensure the efficient provision of supporting infrastructure.*<br><br>*New housing should have access to services and be planned for long term sustainability including walkability to activity centres, public transport, schools and open space.*<br><br>*Planning for housing should include providing land for affordable housing.* | The Project would improve access for both existing and developing residential areas (adjacent to the Project) to and from schools, and community and retail services within both Echuca and Moama. Additionally, it would relieve pressure on the existing bridge, increasing accessibility throughout the town centres (Clause 16.01-2). The *Traffic Impact Assessment* (Jacobs, 2015) prepared for the project further details the improvements to |

| Principle | Objectives | Compliance of the Project |
|---|---|---|
| | | accessibility.<br><br>The *Social Impact Assessment* further considers some of the issues identified within this policy (AECOM, 2015). |
| Clause 17<br><br>Economic Development | *Planning is to provide for a strong and innovative economy, where all sectors of the economy are critical to economic prosperity.* | The Project would remove freight traffic from the Cobb Highway (Meninya Street) in Moama, and the Northern Highway (Heygarth and High Streets) in Echuca. This would contribute to the attractiveness and safety of Echuca as a tourist destination and allow better access for tourists between States (Clause 17.03).<br><br>Additionally, it would provide an unrestricted access route for freight vehicles between Victoria and NSW and increase the efficient movement of freight on interstate roads. This would potentially increase the attractiveness of Echuca and Moama for freight companies (Clause 17.02).<br><br>The *Economic Impact Assessment* concluded that all key sectors of the economy would benefit from the Project and that it would provide an opportunity for the local economy to expand and diversify (Essential Economics, 2015). |
| Clause 18<br><br>Transport | *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.* | Clause 18 is directly relevant to the Project, and is consistent with the Project objectives. The project would reserve land for a strategic transport infrastructure project (Clause 18.01-2), and specifically seeks to provide access between Echuca and Moama consistent with forecast demand (Clause 18.01-1) such that forecast traffic volumes can be accommodated on the crossings within bridge capacities (Jacobs, 2015).<br><br>Traffic volumes through the town centres are forecast to decrease with the operation of the second bridge, which will improve road safety, particularly in areas which have high levels of pedestrian activity (Jacobs, 2015). Road safety may be reduced along the alignment, due to increased traffic volumes, however improvements to intersections, and facilities for pedestrians and cyclists, have been included in the design to minimise risk (Jacobs, 2015).<br><br>The Project would also allow for efficient movement of freight on interstate roads, |

| Principle | Objectives | Compliance of the Project |
|---|---|---|
| | | allowing for greater development of the industrial sector. In particular, the project would improve river crossing access for heavy and oversized vehicles that would otherwise be restricted from using the existing bridge (Jacobs, 2015).<br><br>The Project has been located to achieve the greatest overall benefit to the community and with regard to making the best use of existing infrastructure, minimising impacts on the environment and optimising accessibility, safety emergency access, service and amenity (Clause 18.01-2), as detailed in the EES options assessment for the project.<br><br>Pedestrians and cyclists would be well catered for, through the use of off-road and shared paths, providing for more sustainable transport options (Clause 18.01-2 and Clause 18.02-1).<br><br>Additionally, the Project has been designed to minimise disruption to residential communities and associated amenity expectations (Clause 18.01-2).<br><br>Further consideration of transport impacts is provided within the *Traffic Impact Assessment* for the Project (JACOBS, 2015).<br><br>The EES for the project includes details for the management and reduction of environmental impacts during construction and ongoing through operation, consistent with Clause 18.01-2. |
| Clause 19<br><br>Infrastructure | *Planning for development of social and physical infrastructure should enable it to be provided in a way that is efficient, equitable, accessible and timely.*<br><br>*Growth and redevelopment of settlements should be planned in a manner that allows for the logical and efficient provision and maintenance of infrastructure, including the setting aside of land for the construction of future transport routes.* | The Project utilises the existing road along Warren Street and parts of the Murray Valley Highway, utilising where possible existing infrastructure (Clause 19).<br><br>The Project has been designed such that all impacts have been minimised where possible, and that access will have improved efficiency and accessibility. The second bridge is long overdue, with planning for the Project having commenced more than 10 years ago and with discussions first commencing some 50 years ago, and progress of the Project is now eagerly awaited by many within the community.<br><br>As outlined in this report, the Project would support the growth and development of housing and industry within the identified growth areas |

| Principle | Objectives | Compliance of the Project |
|---|---|---|
| | | in Moama and Echuca, consistent with the relevant growth areas policies. |

### 6.1.7 Local Planning Policy Framework

The Local Planning Policy Framework (LPPF) sets a local and regional strategic policy context for a municipality and consists of the Municipal Strategic Statement (MSS) and specific local planning policies. The MSS provides a profile of the municipality and sets out planning, land use and development objectives. The local planning policies are more detailed policies or implementing the objectives and strategies identified in the MSS. These are given effect through the zoning and overlay provisions.

The Campaspe Shire MSS and local policies, as set out in the LPPF, provide the following relevant strategies and policies.

Table 3 Campaspe Local Planning Policies

| Strategy | Objective | Relevance to Project |
|---|---|---|
| **Municipal Strategic Statement** | | |
| Clause 21.02<br>Key Influences | This Clause identifies the following key land use planning consideration for the municipality:<br>*Settlement*<br>*Environment*<br>*Economic Development* | This Clause is relevant as it outlines key influences that the Project would address, including (amongst other things) population growth, environmental and heritage values and commercial, tourism and industrial growth,<br>The Project would improve access to services and facilities as the population of Echuca continues to grow, through the provision of a second Murray River crossing.<br>While the construction of the Project would have environmental impacts, mitigation measures would be implemented to ensure that the environmental and heritage values of the area are maintained.<br>Additionally, the construction of a restriction free river crossing for HML and over dimensional vehicles would increase economic development within the area allowing larger industries and distribution businesses to establish within the town. This would further improve the breadth of industry and scale of businesses in the area which are key contributors to the Shire's employment base. |
| Clause 21.03<br>Vision | *People choose to live in and come to Campaspe because of the lifestyle and opportunities which are sustainable and vibrant.* | The Project would increase the liveability of Echuca for all existing and future residents, Not only would it improve access to services and opportunities in both Echuca and Moama, it would greatly improve the amenity of the |

| Strategy | Objective | Relevance to Project |
|---|---|---|
| | | Echuca Town Centre.<br><br>The Project has sought to balance environmental, social and economic attributes which are valued within the area in determining the most appropriate alignment and design. |
| Clause 21.04-1<br><br>Settlement | *Protect and enhance the natural and built features through balancing the interest between the environment, rural, urban, commercial and industrial and recreational requirements.* | This Clause provides that appropriate infrastructure enhances the prosperity and quality of life for both residents and visitors. In addition the policy recognises infrastructure delivery as a fundamental element in providing affordable and diverse housing, generating economic growth and sustainably managing the municipality.<br><br>This Clause earmarks Echuca West as an area for future residential growth. The Echuca West Framework Plan sets out six precincts for future residential development.<br><br>The Project will provide greater opportunity for residential and commercial development to the west of Echuca. Additionally, it will provide an alternative route between Echuca and Moama alleviating traffic congestion on the existing bridge and increasing safety and access to key services. |
| Clause 21.04-2<br><br>Environment | *To ensure that the quality, quantity and availability of water is maintained.*<br><br>*To ensure any new use or development does not cause water pollution or land degradation.*<br><br>*To protect the health of waterways, wetlands and floodplain areas of environmental significance.*<br><br>*To encourage environmentally responsible effluent disposal techniques.*<br><br>*To protect the environmental importance of the Murray River.*<br><br>*To implement sustainable water use plans.*<br><br>*To protect the surface waters and ground waters in the Loddon, Campaspe and Goulburn Basin catchments from stormwater pollutants and the impacts of peak stormwater flows.*<br><br>*To protect, manage and restore native vegetation, including grasslands and wetland* | Relevant policies within this Clause relate to the protection of water, biodiversity, flooding, heritage, the built environment and the Murray River Corridor. These policies have been addressed either directly or indirectly within specialist technical assessments undertaken for the Project to ensure that the Project minimises its impact on all facets of the environment.<br><br>The *Biodiversity and Habitat Impact Assessment* (BLA, 2015) report concludes that the Project would have a range of impacts on native vegetation, fauna habitat and other biodiversity values as a result of construction and ongoing operation. However it also concludes that these would generally be at a local scale, and that significant regional consequences are not anticipated. It proposes a number of measures to be applied during construction and to the design to minimise or avoid further impact. Impacts to biodiversity and habitat can be mitigated to between |

| Strategy | Objective | Relevance to Project |
|---|---|---|
| | *vegetation.*<br><br>*To protect and enhance indigenous roadside vegetation.*<br><br>*To minimise the impact of salinity and rising water tables on the environment.*<br><br>*To reduce salt loads in rivers.*<br><br>*To protect life, health, safety and community well being from flood hazard.*<br><br>*To minimise the impact of flooding on the community.*<br><br>*To protect and enhance heritage places including buildings, trees and structures of natural or cultural significance for present and future generations in the Shire of Campaspe.*<br><br>*To identify further sites for the continued economic, social and cultural development of the community.*<br><br>*To promote a high standard of architectural, landscaping and urban design for built form throughout the Shire.*<br><br>*To create safe and compact neighbourhoods with good access to services and facilities and a strong emphasis on walking and active transport.*<br><br>*To improve the appearance of existing and proposed industrial areas.*<br><br>*To improve the appearance of existing and proposed commercial areas.*<br><br>*To protect the environs of the Murray River recognising its importance for nature conservation, flooding, economic development, recreation and tourism.* | negligible and medium risk levels through the implementation of the recommended management measures outlined in the report, with most impacts able to be mitigated to a low risk level.<br><br>The *Soils and Geology Impact Assessment Report* (VicRoads, 2015) addresses the potential effects of erosion and sedimentation, consistent with the policy described in Clause 21.04-2 and concludes that with mitigation, the potential of sediment generation post construction would only affect surface water and be temporal in nature (i.e. during a high intensity rainfall event) and low scale, and only minimal erosion should occur and would not be considered a significant impact.<br><br>The *Specialist Hydrology Report* (Cardno, 2015) considers potential flooding related impacts of the project and the requirements of the North Central Catchment Management Authority. It concludes that overall, the flood impacts would be mitigated back to existing flood levels and the flood behaviour is not significantly altered across the floodplain. The predicted impacts of the proposed alignment meet legislative requirements. The project is expected to have minor flood impacts. In addition it notes that the project would provide a second flood evacuation route up to the 100 year ARI event for the main township of Echuca, and provide increased flood protection of Warren Street through additional culverts and mitigation structures which would reduce the frequency of the road overtopping.<br><br>The *Economic Impact Assessment* (Essential Economics, 2015) also outlines mitigation measures to minimise construction impacts on tourism and local river based activities, and the Southern Ski 80 event, concluding that impacts would be negated or reduced once implemented.<br><br>As detailed under Clause 15 in Table 2, the project has sought to minimise impacts on heritage values. The Project would not impact on historic cultural heritage values (Heritage Insight, 2015a), and impacts on Aboriginal cultural heritage values have been minimised and agreed acceptable with appropriate |

| Strategy | Objective | Relevance to Project |
|---|---|---|
| | | mitigation with the Yorta Yorta Nation (Heritage Insight, 2015b).<br><br>The project will provide improved pedestrian and cycle access through the incorporation of shared and off-road paths. |
| Clause 21.04-3<br><br>Economic Development | *Campaspe will provide leadership, resources and services to ensure a vibrant, growing community with a stable, sustainable economic base.*<br><br>*Campaspe will attract resources into the municipality to support sustainable economic growth.*<br><br>*Campaspe will support and promote new and existing industries and businesses.* | This Clause identifies relevant policies relating to commerce, industry and tourism. The policy recognises the constrained nature of Echuca's existing commercial centre with the historic area of the Port of Echuca to the north, the railway line to the east and the Campaspe River and identifies that as the town continues to grow restricted retail activities will need to become available on the major highways. Accordingly, the policy provides that a neighbourhood convenience shopping facility has been identified on the Murray Valley Highway to service the Echuca West Area.<br><br>The policy confirms that the growth of Echuca will lead to the need for an additional crossing of the Murray River to the north west of the town centre as an extension of the Murray Valley Highway.<br><br>The *Economic Impact Assessment* concluded that the Project would enhance and diversify the local economy and support sustainable economic growth (Essential Economics, 2015). It concludes that with mitigation any potential adverse impacts on businesses during consideration and in the longer term would be removed or reduced.<br><br>Further consideration of impacts on economic development is identified within the *Economic Impact Assessment* for the Project (Essential Economics, 2015). |
| 21.04-4<br><br>Town Structure Plans | *To provide an indicative plan of the future desired growth patterns in and surrounding the Echuca Urban Growth Area.* | The Project is compliant with the Echuca Town Structure Plan – Echuca Central, which identifies a Planning Investigation Area for a Second River Crossing in the vicinity of Warren Street.<br><br>Furthermore, the location of the Project is considered to be consistent with the predominantly western direction of the future urban growth of Echuca. |

| Strategy | Objective | Relevance to Project |
|---|---|---|
| **Local Planning Policies** | | |
| Clause 22.02<br><br>Heritage Policy | *To protect heritage places within the Shire of Campaspe in accordance with the accepted conservation standard of the International Council on Monuments and Sites (ICOMOS) Burra Charter.* | The Project has been specifically designed to minimise impact on the 'sand hill' which is of Aboriginal heritage significance and the dwelling of historic heritage on Crofton Street. It Is not envisaged the Project would negatively impact on the overall significance of these heritage places.<br><br>As detailed under Clause 15 in Table 2, the project has sought to minimise impacts on heritage values. The Project would not impact on historic cultural heritage values (Heritage Insight, 2015a), and impacts on Aboriginal cultural heritage values have been minimised and agreed acceptable with appropriate mitigation with the Yorta Yorta Nation (Heritage Insight, 2015b). Further information on impacts is provided within the relevant heritage reports. |
| Clause 22.03<br><br>Port of Echuca Heritage Policy | *To protect the Port of Echuca as a nationally significant heritage tourism precinct.* | This Clause identifies (amongst other things) that short and long term parking and access arrangements should be undertaken in accordance with the Master Plan to ensure vehicle congestion in the Port area is minimised.<br><br>The Project would reduce through traffic travelling along High Street in proximity of the Port of Echuca by providing an alternative route from Echuca to Moama (Jacobs, 2015). This would not only ensure the protection of the Port but would increase pedestrian safety and amenity within the area.<br><br>In addition, this policy discourages development that impinges on existing significant view lines towards and from the Port of Echuca and preserving aesthetic, historic and environmental values of the Campaspe River and public land to the west and encouraging and enhancing links between the Campaspe and Murray Rivers.<br><br>Viewlines have been considered within the Landscape and Visual Impact Assessment (Spiire, 2015). The report notes that the Port of Echuca is a distinctive landscape feature of the Murray River area as it contributes to a sense of place. The report concludes that the |

| Strategy | Objective | Relevance to Project |
|---|---|---|
| | | Project would have its highest impacts during construction, however if the bridge is designed to be a clear span and elegant structure that provides a positive visual contribution to the landscape, then ongoing visual impacts at the Murray would be reduced to a high level.<br><br>Impacts on historic values are described in the *Report on an Archaeological Survey for Historic Cultural Heritage* (Heritage Insight, 2015). The report notes that the Echuca wharf precinct is located more than 500 metres south of the study corridor. It concludes that The Project will not impact on any known historic archaeological sites, buildings or places, and that the construction of the bridge over the Murray River will have a positive long-term effect, as it will incorporate materials and design that are sympathetic to the highly significant historic fabric of the Echuca Township Precinct and Echuca Wharf. |
| Clause 22.07<br><br>Water Sensitive Urban Design | *To promote the use of water sensitive urban design, including stormwater re-use.*<br><br>*To protect the surface water and ground waters in the Loddon, Campaspe and Goulburn Basin Catchments from Stormwater flows.*<br><br>*To integrate stormwater treatment measures into the landscape.*<br><br>*To reduce the entry of pollutants into stormwater run-off.* | This Clause seeks to ensure stormwater treatment measures are incorporated into the design of development to protect and improve the condition of the natural waterways.<br><br>The Project has been specifically designed to minimise impacts on the surrounding Campaspe and Goulburn Basin catchments as outlined in the *Specialist Hydrology Report* through the implementation of planned controls and additional mitigation measures. As detailed in the Project Description, the project would incorporate stormwater drainage works, including the construction of water sensitive road design measures (spill basins). These may be consolidated with temporary sediment basins.<br><br>The *Specialist Hydrology Report* also addresses water quality and concludes that the project achieves the requirements of SEPP and EPA guidelines and the environmental management controls proposed meet and exceed legislative requirements and are in-line with best practice. Water quality during construction would be managed through the incorporation of sedimentation basins to contain runoff events any spill on the road. |

### 6.1.8 Zone and Overlay Controls

Standardised zones are used in all planning schemes as required, and are used to administer and implement the SPPF and LPPF. Some zones have schedules that provide for local circumstances. In addition, further planning provisions may apply to a site or area through the application of an overlay. As with zones, standard overlays are applied to implement policy as required, generally in the form of built form or development guidelines. Generally, overlays apply to a single issues or related set of issues and multiple overlays can be used. Many overlays like zones have schedules to specify local objectives and requirements.

The zones and overlays that apply to the proposed road reserve are outlined below.

#### *Zones*

The following table sets out a summary of zones within the Project Area. Zoning maps for the Project are provided in Figure 11.

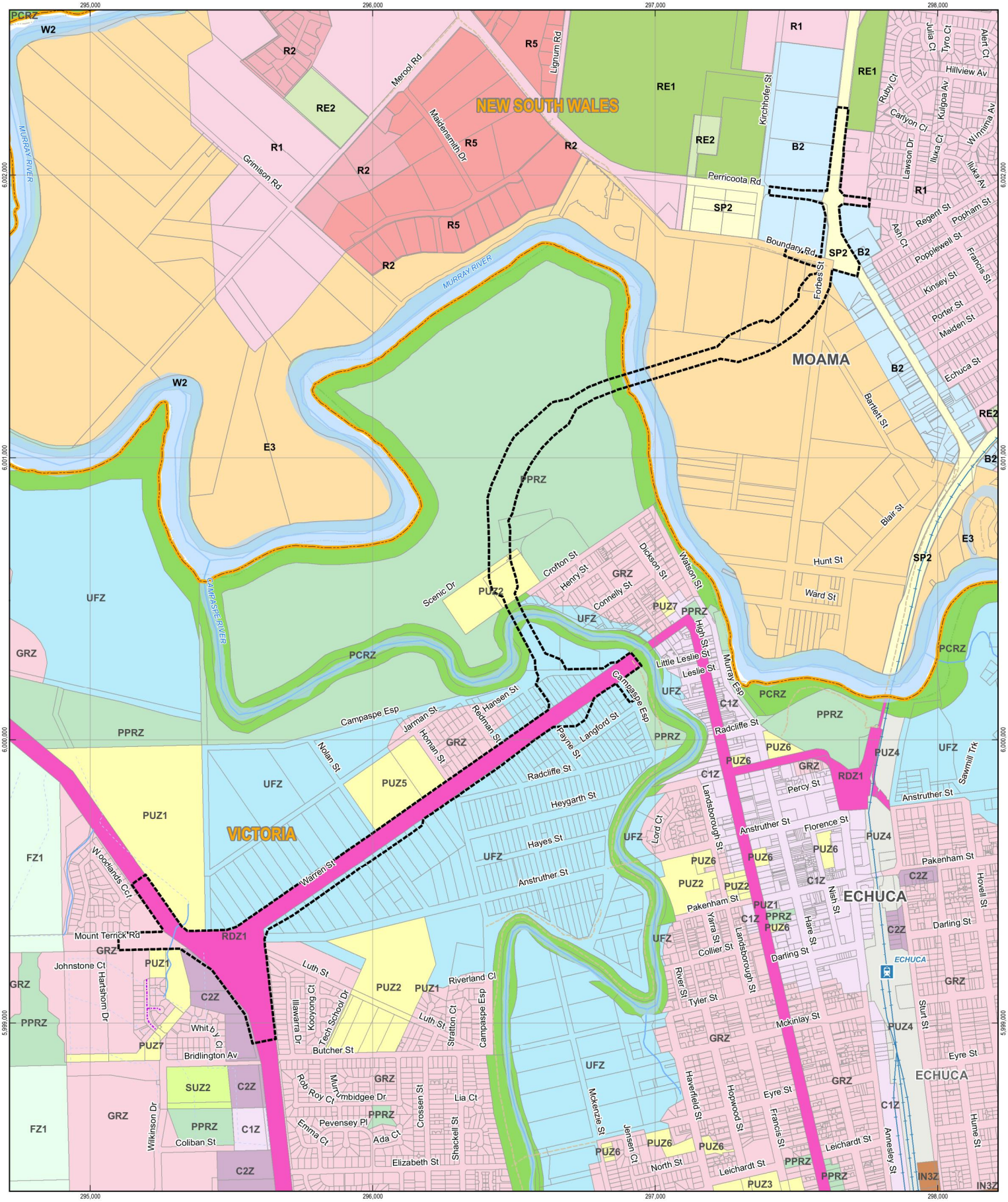
Table 4 Zones within the Project Area (Victoria)

| Zone | Purpose | Planning permit requirement |
|---|---|---|
| General Residential Zone<br>(GRZ) | *To encourage development that respects the neighbourhood character of the area.*<br>*To implement the neighbourhood character policy and adopted neighbourhood character guidelines.*<br>*To provide a diversity of housing types and moderate housing growth in locations offering good access to services and transport.*<br>*To allow education, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations.* | The use of land for a road is listed in Clause 62.01 and therefore is a section 1 use under this zone, and a planning permit is not required for the use or development of land in this zone for the purpose of a road.<br>The proposed road reserve includes a part of Mount Terrick Road which is included in this zone. The Project is consistent with the purpose of this zone, particularly as it would provide existing and future residential areas to the west of Echuca and Moama with good access to services and transport. |
| Commercial 2 Zone<br>(C2Z) | *To encourage commercial areas for offices, appropriate manufacturing and industries, bulky goods retailing, other retail uses, and associated business and commercial services.*<br>*To ensure that uses do not affect the safety and amenity of adjacent, more sensitive uses.* | The use of land for a road is listed in Clause 62.01 and is therefore a section 1 (permit not required use) under this zone. A permit is required for buildings and works according to Clause 34.02-4. However, Clause 62.02-2 provides that a permit for buildings and works associated with 'road works' would not be required within this zone.<br>This zone applies to land at the corner of Mount Terrick Road. The Project would not conflict with the purpose of this zone or the longer term plans for this area (this area is currently undeveloped). In fact enhanced accessibility, increased traffic, and the new link between Echuca and Moama may further support the development of commercial uses in this area. The *Economic Impact Assessment* notes that the Project would allow for better access to areas outside the town |

| Zone | Purpose | Planning permit requirement |
|---|---|---|
| | | centres of Echuca and Moama, including the Echuca South East Industrial & Commercial Growth Area and the land zoned for commercial uses on the Murray Valley Highway near Warren Street. This would allow greater efficiency for transport dependant industries and the potentially increase the development of bulky good retailing and other retail uses within these areas (Essential Economics, 2015). |
| Urban Floodway Zone<br><br>(UFZ) | *To identify waterways, major floodpaths, draining depressions and high hazard areas within urban areas which have the greatest risk and frequency of being affected by flooding.*<br><br>*To ensure that any development maintains the free passage and temporary storage of floodwater, minimises flood damage and is compatible with flood hazard, local drainage conditions and the minimisation of soil erosion, sedimentation and silting.*<br><br>*To reflect any declarations under Division 4 of Part 10 of the Water Act, 1989.*<br><br>*To protect water quality and waterways as natural resources in accordance with the provisions of relevant State Environment Protection Policies, and particularly in accordance with Clauses 33 and 35 of the State Environment Protection Policy (Waters of Victoria)* | A planning permit is required in this zone for the use and development of land for the purpose of a road. An application under this zone must be referred to the Relevant floodplain management authority (a recommending authority under Clause 66).<br><br>The *Specialist Hydrology Report* (Cardno, 2015) assesses flood risk and water quality matters associated with the floodway. In particular, the assessment concludes that with mitigation, the Project would not have a significant effect on the function, values and beneficial uses of surface water for the lower Campaspe River and Murray River, and would not contaminate the soil and groundwater from construction and operation activities. In addition it notes that the project would provide a second flood evacuation route up to the 100 year ARI event for the main township of Echuca. Also that the project would provide increased flood protection of Warren Street through additional culverts and mitigation structures which would reduce the frequency of the road overtopping. The road would also to be designed to withstand overtopping to improved standards which will reduce the likelihood of damage in a flood event. Sections of the road would also be raised to above the 100 year ARI event which further reduces the likelihood of flood damage.<br><br>The *Specialist Hydrology Report* also addresses water quality and concludes that the project achieves the requirements of SEPP and EPA guidelines and the environmental management controls proposed meet and exceed legislative requirements and are in-line with best practice. Water quality during construction would be managed |

| Zone | Purpose | Planning permit requirement |
|---|---|---|
| | | through the incorporation of sedimentation basins to contain runoff events any spill on the road.<br><br>With mitigation and planned controls, the *Specialist Hydrology Report* (Cardno, 2015) concludes that the project would maintain existing flood conditions and in some instances reduce flood risk. The impact of flooding is maintained at existing levels in line with the required legislation, however the inclusion of the additional flood free evacuation route had decreased the risk to community in that area. |
| Public Use Zone – Education<br><br>(PUZ2) | *To recognise public land use for public utility and community services and facilities.*<br><br>*To provide for associated uses that are consistent with the intent of the public land reservation or purpose.* | The use of land for a Road is listed in Clause 62.01 and therefore is a section 1 use under this zone, and a planning permit is not required for the use or development of land in this zone for the purpose of a road.<br><br>This zone relates to the former Echuca High School which has been demolished. Further discussion is provided later in this report (refer to section 8.2.3, discussion on *Victoria Park and former Echuca High School site*). |
| Public Conservation and Resource Zone (PCRZ) | *To protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values.*<br><br>*To provide facilities which assist in public education and interpretation of the natural environment with monomial degradation of the natural environment or natural processes.*<br><br>*To provide for appropriate resource based uses.* | This zone applies to the Campaspe and Murray Rivers. A planning permit is required for the use and development of land for the purpose of a road.<br><br>Environmental studies have been undertaken as part of this Project to determine potential impacts and mitigation necessary to minimise the potential impact on the environment, and to protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values, consistent with the purpose of this zone. (Further discussions regarding compliance with these objectives are outlined in Table 2 and Table 3). |
| Road Zone, Category 1<br><br>(RDZ1) | *To identify significant roads*<br><br>*To identify land which has been acquired for a significant proposed road.* | A planning permit is not required for the use or development of land in this zone for the purpose of a road.<br><br>The Project is consistent with the purpose of this zone. |
| Public Park and Recreation Zone | *To recognise areas for public recreation and open space.* | The use of land for a Road is listed in Clause 62.01 and therefore is a section 1 use under |

| Zone | Purpose | Planning permit requirement |
|---|---|---|
| (PPRZ) | *To protect and conserve areas of significance where appropriate.*<br><br>*To provide for commercial uses where appropriate* | this zone, however whilst a permit is not required for use, a permit is required for buildings and works for the purposes of a road under this zone (unless an exemption applied such as where the buildings or works is shown in an incorporated plan which applies to land).<br><br>This zone relates to the Victoria Park, and the Project is consistent with the *Victoria Park and Environs Master Plan* (2010), as outlined in section 6.1.4. |




LEGEND

- Right-of-Way (ultimate duplication)
- State Boundary
- Rail station
- Railway

**VIC Zones**

- Commercial 1
- Commercial 2
- Farming
- General Residential
- Industrial 3
- Public Conservation & Resource
- Public Park and Recreation
- Public Use 2 - Education
- Public Use 4 - Transport
- Road – Category 1
- Special Use 2 - Private Schools
- Urban Flood

**NSW Zones**

- B2 Local Centre
- E3 Environmental management
- R1 General Residential
- R2 Low Residential
- R5 Large Lot Residential
- RE1 Public Recreation
- RE2 Private Recreation
- SP2 Infrastructure
- W2 Recreational Waterways

Scale 1:12,500 (At A3)

0 60 120 240 360 480

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

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VicRoads
Echuca - Moama Bridge

Job Number 31-31941
Revision A
Date 04 Jun 2015

# Planning Zones

Figure 11

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### *Overlays*

The following table sets out a summary of overlays within the Project Area. Overlay maps for the Project Area are provided in Figure 12. The Overlays can trigger approvals for 'buildings and works' and 'vegetation removal'.

Table 5 Overlays within the Project Area (Victoria)

| Overlay | Purpose | Permit requirements |
|---|---|---|
| Design and Development Overlay<br><br>(DDO3) | DDO3 relates to the Northern and Murray Valley Highways Precinct Echuca. It is a design objective of this Schedule to:<br><br>*Create a vibrant and active highway business precinct based around large buildings for bulky goods retailing, manufacturing and associated services within a well landscape boulevard setting.*<br><br>*To ensure access from the Northern and Murray Valley Highways to the new residential areas are clearly defined, legible and provide attractive gateways.*<br><br>The schedule provides design requirements for new developments that have a frontage to the highway. | A permit is required under this Overlay for buildings and works associated with a road.<br><br>The design requirements, however relate specifically to developments that adjoin the highways, and is not considered specifically relevant to this Project. |
| Floodway Overlay<br><br>(FO) | *To identify waterways, major floodpaths, draining depressions and high hazard areas which have the greatest risk and frequency of being affected by flooding.*<br><br>*To ensure that any development maintains the free passage and temporary storage of floodwater, minimises flood damage and is compatible with flood hazard, local drainage conditions and the minimisation of soil erosion, sedimentation and silting.*<br><br>*To reflect any declarations under Division 4 of Part 10 of the Water Act, 1989.*<br><br>*To protect water quality and waterways as natural resources in accordance with the provisions of relevant State Environment Protection Policies, and particularly in accordance with Clauses 33 and 35 of the State Environment Protection Policy (Waters of Victoria).*<br><br>*To ensure that development maintains or improves river and wetland health, waterway protection and flood plain health.* | A permit is ordinarily required within this Overlay for roadworks, however the schedule provides an exemption and accordingly a permit is not required under this Overlay in this instance.<br><br>An application under this overlay must be referred to the Relevant floodplain management authority (a recommending authority under Clause 66).<br><br>The *Specialist Hydrology Report* (Cardno, 2015) considers the objectives of this Clause concludes that with mitigation, the Project would not have a significant effect on the function, values and beneficial uses of surface water for the lower Campaspe River and Murray River, and would not contaminate the soil and groundwater from construction and operation activities. In addition it notes that the project would provide a second flood evacuation route up to the 100 year ARI event for the main township of Echuca. Also that the project would provide increased flood protection of Warren Street through additional culverts and mitigation structures which would reduce the frequency of the road overtopping. |

| Overlay | Purpose | Permit requirements |
|---|---|---|
| | | The road would also to be designed to withstand overtopping to improved standards which will reduce the likelihood of damage in a flood event. Sections of the road would also be raised to above the 100 year ARI event which further reduces the likelihood of flood damage.<br><br>The *Specialist Hydrology Report* also addresses water quality and concludes that the project achieves the requirements of SEPP and EPA guidelines and the environmental management controls proposed meet and exceed legislative requirements and are in-line with best practice. Water quality during construction would be managed through the incorporation of sedimentation basins to contain runoff events any spill on the road.<br><br>With mitigation and planned controls, the *Specialist Hydrology Report* (Cardno, 2015) concludes that the project would maintain existing flood conditions and in some instances reduce flood risk. The impact of flooding is maintained at existing levels in line with the required legislation, however the inclusion of the additional flood free evacuation route had decreased the risk to community in that area. |
| Bushfire (Wildfire) Management Overlay<br><br>(WMO) | *To ensure that the development of land prioritises the protection of human life and strengthens community resilience to bushfire.*<br><br>*To identify areas where the bushfire hazard warrants bushfire protection measures to be implemented.*<br><br>*To ensure development is only permitted where the risk to life and property from bushfire can be reduced to an acceptable level.* | A permit is not required under this Overlay for buildings and works associated with a road.<br><br>Improved accessibility within Echuca-Moama as a result of the Project is expected to provide significant benefits for emergency access during bushfire events. |
| Land Subject to Inundation Overlay<br><br>(LSIO) | *To identify land in a flood storage or flood fringe area affected by the 1 in 100 year flood or any other area determined by the floodplain management authority.*<br><br>*To ensure that development maintains the free passage and temporary storage of floodwaters, minimises flood damage, is compatible with the flood hazard and local* | A planning permit is ordinarily required under this Overlay for roadworks, however the schedule provides an exemption, and accordingly a permit is not required under this Overlay in this instance.<br><br>An application under this overlay must be referred to the Relevant floodplain management authority (a recommending |

| Overlay | Purpose | Permit requirements |
|---|---|---|
| | *drainage conditions and will not cause any significant rise in flood level or flow velocity.*<br><br>*To reflect any declarations under Division 4 of Part 10 of the Water Act, 1989.*<br><br>*To protect water quality and waterways as natural resources in accordance with the provisions of relevant State Environment Protection Policies, and particularly in accordance with Clauses 33 and 35 of the State Environment Protection Policy (Waters of Victoria).*<br><br>*To ensure that development maintains or improves river and wetland health, waterway protection and flood plain health.* | authority under Clause 66).<br><br>Flooding and water quality are considered in detail in the *Specialist Hydrology Report* (Cardno, 2015). The project is consistent with the objectives of this Clause (refer to discussion above under the Floodway Overlay (FO)). |
| Environmental Significance Overlay<br><br>(ESO1) | ESO1 specifically relates to the Murray River Corridor. The environmental objectives for this area are:<br><br>*To promote consistent planning and management along the Murray River corridor.*<br><br>*To protect the environs of the Murray River recognising its importance for nature conservation, flooding, economic development, recreation and tourism.*<br><br>*To protect and enhance the biodiversity, ecological, and cultural values of waterways.*<br><br>*To prevent development of land adjoining the river from degrading water quality.*<br><br>*To prevent the loss of riparian flora and fauna, biodiversity, habitat and wetland environments.*<br><br>*To protect the values and role of the Murray River reserves and other public land as floodplains and as buffer areas for nutrients and other pollutants.*<br><br>*To restrict inappropriate development on land adjoining and near the Murray River.*<br><br>*To assess the use or development of land adjoining the Murray River corridor according to the capacity of the proposal to protect the environmental and landscape qualities of the river environs in accordance with sustainable development principles.*<br><br>*To specifically address land degradation processes including erosion, native vegetation* | Whilst a permit is ordinarily required within this Overlay for roadworks, the schedule provides an exemption and accordingly a permit for the works is not required under this Overlay in this instance. A permit is required under this overlay to remove, destroy or lop any vegetation, including dead vegetation.<br><br>A number of specialist assessments have been undertaken to assess the impact of the Project on the Murray River corridor environmental, heritage, social and economic values.<br><br>The *Biodiversity and Habitat Impact Assessment* (BLA, 2015) report concludes that the Project would have a range of impacts on native vegetation, fauna habitat and other biodiversity values as a result of construction and ongoing operation. However it also concludes that these would generally be at a local scale, and that significant regional consequences are not anticipated. It proposes a number of measures to be applied during construction and to the design to minimise or avoid further impact. Impacts to biodiversity and habitat can be mitigated to between negligible and medium risk levels through the implementation of the recommended management measures outlined in the report, with most impacts able to be mitigated to a low risk level.<br><br>The *Soils and Geology Impact Assessment Report* (VicRoads, 2015) addresses the |

| Overlay | Purpose | Permit requirements |
|---|---|---|
| | *decline, pollution of ground or surface water, groundwater accession, salinisation and soil acidity, and adverse effects on the quality of land and water habitats.*<br><br>*To ensure that buildings are sited a sufficient distance from the Murray River, waterways and drainage lines so as to:*<br>- *Maintain and improve water quality;*<br>- *Minimise risk and the redistributive effect on floodwater associated with the erection of buildings on the floodplain;*<br>- *Protect the scenic landscape of the riverine corridor;*<br>- *Improve bank stability; and*<br>- *Protect biodiversity and conserve wildlife habitat.* | potential effects of erosion, including along the banks of the Murray River, consistent with the requirements of the policy described in Clause 13.03-2 and concludes that with mitigation, the potential of sediment generation post construction would only affect surface water and be temporal in nature (i.e. during a high intensity rainfall event) and low scale, and only minimal erosion should occur and would not be considered a significant impact. The report also notes that, "*There would be no significant impacts to the geomorphic stability of the proximate sections of the lower Campaspe and Murray Rivers. With appropriate design of the proposed single spanned structures (abutments set back from the river banks which would minimise scour) and erosion controls measures it is considered the form of the earth and its surface features in the proximate sections of both rivers will be negligible.*"<br><br>The *Specialist Hydrology Report* (Cardno, 2015) addresses potential for impacts on water quality, noting that the most significant risk is associated with construction activities on the Murray River near the banks (required due to the length of the bridge span in this area). The environmental management controls proposed meet and exceed legislative requirements and are in-line with best practice. The Report also notes that the introduction of sediment to the Murray River or Campaspe River would be localised and due to existing high sediment loading, should only have a minor impact. The proposed management measures incorporate strong sediment control as part of the construction works and any works near waterways will utilise coffer dams to control sediment impacts in the waterway.<br><br>The Landscape and Visual Impact Assessment (Spiire, 2015) concludes that the Project would have its very highest impacts on the Murray River during construction, however if the bridge is designed to be a clear span and elegant structure that provides a positive visual contribution to the landscape, then ongoing visual impacts at the Murray would be |

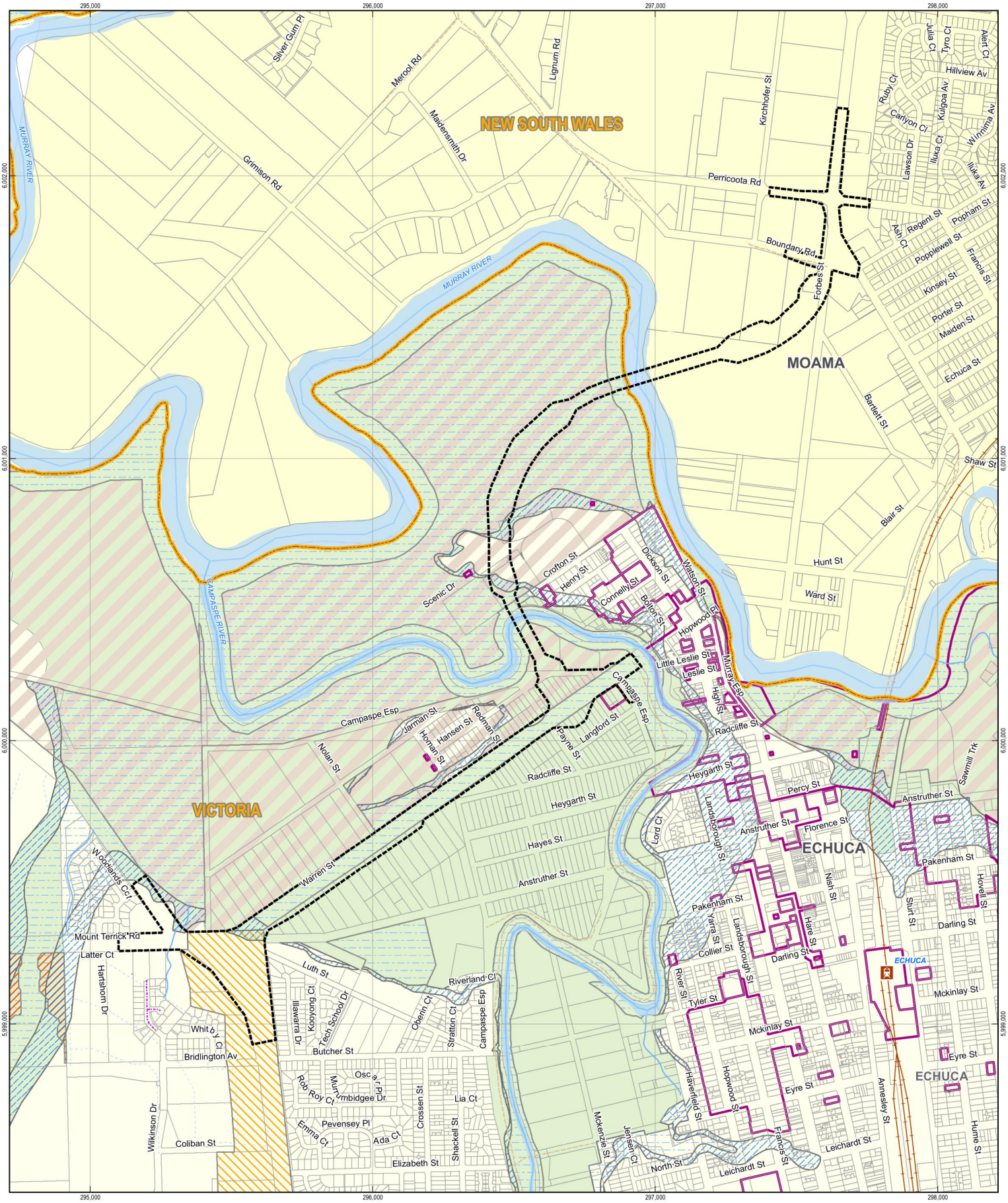
| Overlay | Purpose | Permit requirements |
|---|---|---|
| | | reduced to a high level.<br><br>The Report on an Archaeological Survey for Historic Cultural Heritage Historic Cultural Heritage Impact Assessment (Heritage Insight, 2015) concludes that the construction of the bridge over the Murray River will have a positive long-term effect, as it will incorporate materials and design that are sympathetic to the highly significant historic fabric of the Echuca Township Precinct and Echuca Wharf. |

It is noted that the current Project alignment does not include any land within the Heritage Overlay (HO). However under current Planning Scheme Amendment C101, land within the proposed road reserve would be newly included within the HO. This land is located at Murray Pines and at the St Leonard's homestead. Works within this overlay would, once the Planning Scheme Amendment is approved, trigger the need for a planning permit. An assessment of impacts on heritage values at these locations is included in the *Report on an Archaeological Survey for Historic Cultural Heritage Historic Cultural Heritage Impact Assessment* (Heritage Insight, 2015a). Amendment C101 was publicly exhibited from 29 January 2015 to 2 April 2015. A directions hearing has been scheduled for the week commencing 15 June 2015, and a panel hearing has been scheduled for the week commencing 13 July 2015.

Under the various zones and overlays described above, a planning permit is required for use and development, including roadworks and associated works (such as reinstatement of the toilet block at the Echuca Boat Ramp) and for native and non-native vegetation removal. In particular, the Project includes the following use and development:

- The removal, destruction and lopping of vegetation, including native vegetation.
- Within the Project Area, activities ancillary to the construction and operation of the Project including but not limited to:
  - Establishing and using lay down areas for construction purposes.
  - Constructing and utilising temporary work sites, offices, storage and amenity areas.
  - Constructing fences, walls or barriers.
  - Constructing access roads, shared pathways and boat ramp toilet facilities to the satisfaction of the responsible authority.
  - Creating or altering access to a road.
  - Altering waterways, to the satisfaction of the relevant water authority and catchment management authority.
  - Demolishing and removing buildings, structures and works.
  - Undertaking earthworks including to construct the road, create bunds, mounds, batters, wetlands and landscaping, excavate land and otherwise to excavate land, salvage artefacts and alter drainage and utilities.
  - Subdividing and consolidating land.

It is noted that as part of the Project, a planning scheme amendment is proposed which would facilitate the acquisition of land, use and development, and native and non-native vegetation removal associated with the Project by incorporating a document into the Campaspe Planning Scheme which would allow for all buildings and works associated with the Project and exempt the works from requiring a planning permit.




LEGEND

- State Boundary
- Right-of-Way (ultimate duplication)
- Rail station
- Railway

**Overlays**

- Design & Development 3
- Development Plan 8
- Floodway
- Wildfire Management
- land Subject to Inundation
- Environmental Significance 1
- Heritage

Paper Size A3

0 60 120 240 360 480

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

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VicRoads
Echuca-Moama Bridge

Job Number 31-31941
Revision A
Date 04 Jun 2015

# Planning Overlays

Figure 12

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Data source: VicMap 2014. Created by:lrsmith

### 6.1.9 Particular Provisions

Particular provisions are specific prerequisites or planning provisions for a range of particular uses and developments. The particular provisions apply in addition to the requirements of a zone or overlay. Those considered relevant to the Project and the Project Area are outlined below.

#### *Clause 52.17 Native Vegetation*

The objective of this Clause is to protect and conserve native vegetation through avoiding the removal of native vegetation, and if the removal cannot be avoided, to minimise the removal through appropriate planning and design and appropriately offsetting the loss of native vegetation.

A planning permit is required under this clause to remove, destroy or lop native vegetation, including dead native vegetation. An application to remove, destroy, or lop native vegetation must be supported by a flora and fauna assessment that considers the steps taken to avoid, minimise and offset the loss of vegetation, consistent with the Department of Environment and Primary Industries (DEPI) *Permitted Clearing of Native Vegetation Biodiversity Assessment Guidelines 2013.*

The Flora and Fauna assessment undertaken for the Project (BL&A) considers these requirements in detail.

#### *Clause 52.29 Land Adjacent to a Road Zone, Category 1, or Public Acquisition Overlay for a Category 1 Road*

This Clause apples to land adjacent to a RDZ1, or a Public Acquisition Overlay (PAO) if the purpose of the acquisition is for a Category 1 road. The purpose of this Clause is:

- *To ensure appropriate access to identified roads.*
- *To ensure appropriate subdivision of land adjacent to identified roads.*

This is achieved by requiring a permit to create or alter access to a Category 1 Road or land proposed to be acquired for a Category 1 road.

The Project would require the alteration of access to a Road in a Road Zone Category 1 (new roundabout at Warren Street), which requires planning approval.

The Project would also seek to apply a PAO to the proposed road reserve, to facilitate future acquisition. This would include sufficient land for the ultimate configuration. Once this occurs, a planning permit would be required under this Clause to create or alter access to the land. A planning permit application would be referred by Council to the Roads Corporation for consideration in relation to impacts on the road in the RDZ1 (Warren Street) and any new road crossing.

#### *Clause 62 Uses, Buildings, Works, Subdivision and Demolition not requiring a Permit*

Clause 62.01 states that:

*"Any requirement in this scheme relating to the use of land, other than a requirement in the Public Conservation and Resource Zone, does not apply to…. The use of land for a Road except within the Urban Flood Zone and a Public Conservation and Resource Zone."*

In addition, Clause 62.02-2 states that:

"Any requirement in this scheme relating to the construction of a building or the construction or carrying out of works, other than a requirement in the Public Conservation and Resource Zone, does not apply to… Roadworks."

Roadworks are not specifically defined in the planning scheme, however the common meaning of the word is commonly understood to be activities associated with the construction or maintenance of roads. It is broadly considered that all works for the Project would be exempt under this Clause except for works which are not directly associated with construction of the Project.

### *Clause 65.01 Decision Guidelines*

Clause 65.01 sets out the matters that will be considered in assessing any application for a planning permit. It states that:

*Before deciding on an application or approval of a plan, the responsible authority must consider, as appropriate:*

- *The matters set out in Section 60 of the Act.*
- *The State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.*
- *The purpose of the zone, overlay or other provision.*
- *Any matter required to be considered in the zone, overlay or other provision.*
- *The orderly planning of the area.*
- *The effect on the amenity of the area.*
- *The proximity of the land to any public land.*
- *Factors likely to cause or contribute to land degradation, salinity or reduce water quality.*
- *Whether the proposed development is designed to maintain or improve the quality of stormwater within and exiting the site.*
- *The extent and character of native vegetation and the likelihood of its destruction.*
- *Whether native vegetation is to be or can be protected, planted or allowed to regenerate.*
- *The degree of flood, erosion or fire hazard associated with the location of the land and the use, development or management of the land so as to minimise any such hazard.*

### *Clause 66 Referrals*

Applications of types listed in this Clause must be referred to the specified referral authorities, as outlined below. There are two types of referral authority: a determining referral authority and a recommending referral authority. Clause 66 of the planning scheme identifies the type of referral authority for each kind of application that must be referred. Both types of referral authority can object to the granting of a permit, decide not to object or specify conditions to be included on a permit. However, the effect of that advice on the final outcome of an application is different for each type of referral authority. If a determining referral authority objects, the responsible authority must refuse to grant a permit, and if a determining referral authority specifies conditions, those conditions must be included in any permit granted. In contrast, a responsible authority must consider the recommending referral authority's advice but is not obliged to refuse the application or to include any recommended conditions.

- An application to remove, destroy or lop native vegetation if the area to be cleared is 0.5 hectare or more; or is assessed under the high risk-based pathway as defined in the *Permitted clearing of native vegetation – Biodiversity assessment guidelines* (Department of Environment and Primary Industries, September 2013); or to remove, destroy or lop native vegetation if a property vegetation plan applies to the site; or is on Crown land which is occupied or managed by the responsible authority, would be referred to the Secretary to the Department of Environment and Primary Industries (which has the status of Recommending Referral Authority).
- An application for buildings and works within the UFZ, FO, and LSIO would be referred to the relevant floodplain management authority (which has the status of Recommending referral authority).
- An application to create or alter access to, or to subdivide land adjacent to, a road declared as a freeway or an arterial road under the *Road Management Act 2004*, land owned by the Roads Corporation for the purpose of a road, or land in a PAO if the Roads Corporation is the acquiring authority for the land, subject to exemptions specified in the clause, would be referred to the Roads Corporation or any other application under Clause 52-29 (Determining referral authority)

DELWP (formerly DEPI), the NCCMA, and VicRoads have been involved in consultation throughout the EES process.

### 6.1.10 Campaspe Planning Scheme Review Report

The *Campaspe Planning Scheme Review Report* ('the 2014 Review') provides council with:

- *An overview of the performance of the Campaspe Planning Scheme;*
- *An understanding of what policy changes have occurred since the last review;*
- *The strategic context in which state and local planning is undertaken; and*
- *A program for future action.*

The 2014 review, recognises that there is a need to identify the preferred corridor for the second Murray River crossing in the MSS regardless of whether a final alignment has been determined. The review, amongst other things, also identifies the need to include a reference to the second Murray River crossing in Clause 18 Transport.

This clear recommendation to include the second Murray River Crossing within the Campaspe Planning Scheme highlights the importance of the Project and the report demonstrates its consistency with the strategic planning and land use framework. The Project would fulfil a need which has been clearly identified and has support within the policy framework.

## 6.2 New South Wales planning instruments and legislation

This section considers those NSW State and local strategies and policies relevant to the Project, and how the project supports or impacts on the objectives of those policies.

### 6.2.1 Draft Murray Regional Strategy

The Draft Murray Regional Strategy was prepared by the NSW Department of Planning. The strategy recognises the close relationships between communities along both sides of the Murray River and the opportunities for considerable growth across the wider region. The strategy identifies the regions settlement hierarchy and outlines key constraints and opportunities within the communities.

The strategy identifies Moama as a 'Town' '*with a concentration of local, health, rural support and other services. Lower density housing. Reliant on large centre for more specialised services and shopping'.* The strategy also identifies (amongst other things) growth pressure around Moama and the estimated need for an additional 3400 new dwellings within the area. One of the neighbourhoods planning principles outlined within the strategy seeks to provide:

- *Easy access to major town centres with a range of shops, recreational facilities and services along with smaller village centres and neighbourhood shops.*

The Project would be consistent with this strategy as it would provide greater access to Echuca, which is the closest commercial centre to Moama. The Project would be located to the west of the existing town centre in proximity to Moama's north west growth area providing improved access to existing and future residents to services, schools and recreational facilities within Echuca.

### 6.2.2 Moama Recreation Reserve Plan of Management

The Moama Recreation Reserve Plan of Management (2008) was developed by the Murray Shire Council in recognition of the importance of the Moama Recreation Reserve to set the framework for the future management, use and enhancement of the Reserve. The plan identifies the focus of the reserve on sporting and recreational use and protecting the natural and scenic qualities of the reserve.

Included within the Plan of Management is the *Moama Recreation Reserve Master Plan*. A key direction of the Master Plan 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*.'

The Project would increase the accessibility of the Reserve, providing more convenient access to the Reserve from both Echuca and the region. Improved accessibility to the reserve would attract greater regional interest, especially for the Reserve as a location for large sporting or community events.

### 6.2.3 Moama North West Master Plan

The Moama North West Master Plan 2009 (the Plan) is a strategic framework for the future growth and development of North West Moama. The Plan identifies strategic land use issues affecting the precinct and articulates the preferred pattern for future development. The Masterplan identifies areas for future residential development as well as for open space and a local activity centre. The Master Plan also 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 Project is consistent with the Plan as it would provide greater access from the north west growth area to services, schools, employment opportunities and recreation facilities within Echuca.

### 6.2.4 Murray Shire Strategic Land Use Plan

The Strategic Land Use Plan (SLUP) was developed in response to State government reforms and is applicable to the whole of the Murray Shire. The overarching purpose of the SLUP is to guide the future development and use of land within the Shire for the next 20 years and address land use planning issues in a strategic context.

The SLUP recognises the need for a second river crossing highlighting that *'at times the existing crossing and its approaches operate beyond their function capacity…with traffic congestion now commonplace during peak periods and disruption to movement, such as an accident, often*

*preventing crossing the river at all'.* The Plan identifies opportunity for a second river crossing to the west of Moama.

The Project is consistent with this Plan in that it would provide a much needed second river crossing, in a location (west of Moama) and has been identified as a location within the SLUP.

The Plan also describes preferred locations for future commercial development. Land surrounding the recently constructed Safeway 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.

### 6.2.5 State Environmental Planning Policies

State Environment Planning Policies (SEPPs) relate to issues significant to the State and people of NSW. The purpose of the SEPPs is to ensure that issues of state significance are appropriately taken into consideration by all relevant planning authorities and stakeholders.

A review of all SEPPs (and regional environmental plans which are now deemed SEPPs) was undertaken for this assessment, with the following section discussing those relevant to the Project for the components within NSW.

Table 6 outlines the SEPPs relevant to this Project.

#### State Environmental Planning Policy (State and Regional Development) 2011

Sections 89C(2) and 115U(2) of the EP&A Act provide that a SEPP may declare any development, or any class or description of development, to be State Significant Infrastructure or State Significant Development. The *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP) provides definitions of State Significant Infrastructure and State Significant Development.

Clause 14 of the SRD SEPP provides that development is State Significant Infrastructure if it is:

- wholly or partly permissible without development consent under Part 4 of the Act, by virtue of the operation of a SEPP, and
- it meets the definitions provided in Schedule 3 to the SEPP.

The Project does not match any specific definitions outlined in Schedule 3, however it does match the more general definition within Schedule 3 for 'general public authority activities':

*(1) Infrastructure or other development that (but for Part 5.1 of the Act and within the meaning of Part 5 of the Act) would be an activity for which the proponent is also the determining authority and would, in the opinion of the proponent, require an environmental impact statement to be obtained under Part 5 of the Act.*

The potential significance of impacts would be confirmed during the conduct of the REF and if necessary, an Environmental Impact Statement (EIS) conducted for the NSW components of the Project would be undertaken.

#### State Environmental Planning Policy (Infrastructure) 2007

*State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) aims to facilitate the effective delivery of infrastructure across the State.

Clause 94 of ISEPP permits development on any land for the purpose of a road or road infrastructure facilities to be carried out by or on behalf of a public authority without consent.

As the Project is for a road and is to be carried out by Roads and Maritime in conjunction with VicRoads, development consent from Council is not required. The Project is therefore to be assessed under Part 5 of the EP&A Act.

The Project is not located on land reserved under the *National Parks and Wildlife Act 1974* and does not affect land or development regulated by *State Environmental Planning Policy No. 14 - Coastal Wetlands*, *State Environmental Planning Policy No. 26 - Littoral Rainforests*, SRD SEPP.

Part 2 of the ISEPP contains provisions for public authorities to consult with local councils and other public authorities prior to the commencement of certain types of development. This consultation would be undertaken during the REF and would potentially include consultation with Murray Shire Council and Roads and Maritime Services Maritime Division. A review of the requirements for this consultation would be undertaken during the REF.

#### Murray Regional Environmental Plan No.2 – Riverine Land

The aims of *Murray Regional Environmental Plan No.2* (MREP 2) are to conserve and enhance the riverine environment of the River Murray for the benefit of all users. It covers the riverine land of the Murray River. The Murray Shire is one of 11 local government areas to which MREP 2 applies.

Clause 8(c) states that the planning principles set out in Part 2 (clauses 9 and 10) must be applied when a public authority proposes to carry out development which does not require development consent but which has the potential to adversely affect the riverine environment of the River Murray. Consideration of these planning principles would be undertaken as part of the REF.

### 6.2.6 Murray Local Environment Plan (LEP) 2011

A Local Environment Plan (LEP) is a document that determines how property or land can be used and/or developed in specific areas within New South Wales. Development is controlled through land use zones and through other development controls.

The provisions of the *Murray Local Environment Plan 2011* (Murray LEP) would not apply to the Project due to the application of the ISEPP. Regardless, the sections below outline the relevant provisions of the LEP.

#### Zoning Controls

The Project would be positioned on land which is zoned for the following purposes under the Murray LEP:

- E3 Environmental Management
- W2 Recreational Waterways
- B2 Local Centre
- SP2 Infrastructure (Classified Road)
- RE1 Public Recreation.

The locations of these zones are shown on Figure 11. The Project is permissible with consent within these zones. Clause 5.12 of the Murray LEP also states:

*'This Plan does not restrict or prohibit, or enable the restriction or prohibition of, the carrying out of any development, by or on behalf of a public authority, that is permitted to be carried out with or without development consent, or that is exempt development, under State Environmental Planning Policy (Infrastructure) 2007.'*

As the Project is permissible without consent under the ISEPP, the provision of the Murray LEP do not restrict development in any of the abovementioned zones as affecting the proposed road reserve.

### Additional Local Provisions

As the Project is permissible without consent under ISEPP, the provisions of the Murray LEP do not apply to the proposal. The Murray LEP includes some mapping which identifies part of the proposal site as being:

- Key fish habitat
- Terrestrial biodiversity
- Riparian land and waterways
- Wetlands and freshwater lakes
- Flood prone
- Located adjacent to a heritage item.

Consideration of the above would be made in the assessments in the REF, however as detailed within the policy assessment in section 5.1, the project wioth appropriated mitigation would not consistent with policies which address these environmental matters.

### 6.2.7 Other NSW Legislation

Table 6 outlines the potential approvals and licences which would be required under other NSW legislation. The need for many of these approvals or licences would be required to be confirmed as part of the REF.

Table 6 Potential NSW approvals and licences

| Legislation Considered | Comment |
|---|---|
| *Crown Lands Act 1989* | The proposal would impact upon Crown Land and therefore a permit under the Crown Lands Act 1989 would be required. |
| *Fisheries Management Act 1994* | The proposal would involve works that would affect fish or fish habitat. The proposal would potentially require the following approvals/permits:<br>• Section 199 – give notice of dredging and reclamation work to the Minister and to consider any matters raised by the Minister.<br>• Section 205 – impacts to marine vegetation (e.g. wetlands)<br>• Section 219 – works which would block fish passage. |
| *Heritage Act 1977* | Impacts on non-Indigenous heritage would be required to be confirmed. In the event there are impacts on any State Heritage Items a section 60 application would be required. |
| *National Parks and Wildlife Act 1974* | The *National Parks and Wildlife Act 1974* provides the basis for legal protection and management of Aboriginal sites and objects in NSW. In the event that the proposal is to impact upon or potentially impact an Aboriginal item, an Aboriginal Heirtage Impact Permit would be required to be obtained under Section 90 of the Act. |
| *Protection of the Environment Operations Act 1997* | The project does not meet the definition of a scheduled development or a scheduled activity under Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act) and therefore does not require an Environment Protection Licence (EPL). |
| *Roads Act 1993* | The proposal would involve works on the Cobb Highway which is a classified road and therefore approval under Section 138 of the Roads Act would be required. Approval would not be required for any works on council roads as public authorities (such as Roads and Maritime Services) are exempt from works on non-classified roads. |

| Legislation Considered | Comment |
|---|---|
| *Threatened Species Conservation Act 1995* | The *Threatened Species Conservation Act 1995* (TSC Act) lists a number of threatened species, populations or ecological communities to be considered in deciding whether there is likely to be a significant impact on threatened biota, or their habitats. If any of these could be impacted by the project, an assessment of significance that addresses the requirements of Section 5A of the EP&A Act must be completed to determine the significance of the impact.<br>Significance of impacts would be undertaken during the REF. |
| *Water Management Act 2000* | Approval under section 91E of the *Water Management Act 2000* would not be required as the works are being undertaken by Roads and Maritime Services.<br>A licence may also be required under section 91F of the Water Management Act 2000 if the proposal is to intercept any aquifers.<br>Under clause 61 of the *Water Management Act 2000*, a person may apply to the Minister for Water for an access licence if the application is for a specific purpose access licence and a management plan provides that an application for the licence may be made. If extraction of water from the Murray River is required for the proposal, the contractor would need to apply to the Minister for Water for a specific purpose access licence. |

## 6.3 Consistency with Planning Policy

The Project is generally consistent with State, regional and local land use planning policies. These policies seek to improve links within and between the northern Victoria (Loddon Mallee) and southern NSW regions. Local policy also specifically outlines the need for a second river crossing to the West of Echuca and Moama to enhance connections through the region and local community.

The land uses within and surrounding the Project area predominantly include residential, recreational and commercial uses, with much of the Project area comprised of flood prone land. The development of the Project would not compromise the intent of the existing land uses in the Study area and would in fact contribute to the facilitation of further growth consistent with desired regional growth patterns, and improved access to recreational facilities and services.

The protection and enhancement of environment, heritage, social and economic values are considered within the various specialist technical assessments prepared for the EES, consistent with State and local planning policies. However based on the assessment outlined in this section, it is concluded that the Project is generally consistent with the planning and land use policies.

# 7. Risk Assessment

Planning and land use was not included as part of the risk assessment as the associated risks are generally not quantifiable and often subjective. This assessment refers to a number of other specialist assessments and relies on the recommendations and outcomes of those assessments in determining land use impacts. Accordingly, where those assessments determine the potential and significance of an impact based on the implementation of risk mitigation measures, this assessment therefore also assumes those mitigation measures have been implemented to reduce project impacts.

## 7.1 Mitigation measures

In order to mitigate the risks for the Project, standard VicRoads and Roads and Maritime environmental protection measures and some additional project specific measures have been identified for incorporation into the Environmental Management Framework (EMF). The standard mitigation measures are included at Chapter 20 of the EES (which includes the EMF and reference to the specific mitigation measures.

VicRoads, as the proponent for the construction of the Project, would require the construction contractor to incorporate all of these measures from the Environmental Management Framework (EMF) into the Construction Environmental Management Plan (CEMP).

In some instances, additional Project specific environmental management measures have been recommended by specialists to reduce risks. As noted above, the Planning and Land Use Impact Assessment relied upon the impact assessments prepared by other specialists to inform planning and land use impacts, and therefore the implementation of environmental management measures as recommended in those reports. No additional project specific environmental management measures are recommended in this Assessment.

# 8. Impact Assessment

The impact assessment below describes potential benefits and impacts that the Project, as described in Section 2.2 of this report, may have on existing land uses and planning for future land uses, assuming that VicRoads' and Roads and Maritime's standard environmental protection measures, and any project specific mitigation measures are implemented (refer section 7.1).

The Project would generally provide beneficial impacts for land uses, with any potential detrimental impacts generally being localised and site-specific. These generally relate to the acquisition of land for the Project or amenity impacts during construction. Land use impacts are broadly consistent between the initial and ultimate alignments.

## 8.1 Benefits and Opportunities

### *Economic development*

Once operational, the Project would provide many benefits to the townships of Echuca-Moama and the broader region. These include supporting urban growth and economic development for both Echuca and Moama and the surrounding region, providing greater connectivity and more efficient movement between towns, and enabling access by Higher Mass Limit (HML) vehicles which support significant freight operations and local/regional industry.

In the short term, the Project would have numerous positive impacts, including the potential for increased localised employment during the construction phase (Essential Economics, 2015). This could have associated multiplier effects which may benefit the local and regional community. Construction workers would be expected to come from both within and outside the region, providing increased employment opportunities in the short term. Further consideration of economic benefits is contained within the *Economics Assessment Report* (Essential Economics, 2015) prepared for the Project.

Under the 'no project' scenario, weight limitations on the existing River crossing would continue to prohibit HML vehicles, which in-turn would limit certain types of industries from establishing within Echuca. It is anticipated that the Project would benefit industrial growth. The Project would provide a restriction free River crossing between Victoria and NSW which could encourage larger national industries and distributors to establish in Echuca and Moama due to the ability to efficiently distribute goods locally, state wide and nationally. This would support the local agricultural sector in particular and support the further growth and development of the designated industrial growth precincts such as the South East Echuca Industrial Precinct.

Growth of planned highway commercial clusters to the west of Echuca (along the Murray Valley Highway in proximity to Warren Street), would be accelerated by the operation of the Project, as more passing traffic is directed on the proposed route to the west of Echuca. This would contribute to the diversity of services available at these local centres, providing a greater range of choice for the local community. Increased passing traffic may lead to the development of commercial uses which service highway users such as fast food outlets or service stations, rather than the local convenience shopping type commercial uses currently anticipated in this location. Council would need to consider the appropriateness of any specific proposals for commercial uses in this location, given the significant 'gateway' nature of this location, the Commercial 2 zoning, surrounding land uses, and any other local polices.

The project would also have positive effects on commercial land uses generally, as better access would allow greater efficiency for transport dependant industries, and would enhance and diversify the local economy and support sustainable economic growth (Essential Economics, 2015). This includes the Safeway supermarket and nearby businesses in Moama, which would be more accessible for people within the western parts of Echuca, and would experience more passing traffic. However the Economic Impact Assessment also notes that there would be potential for some loss of passing trade for Moama businesses located close to the existing bridge. The assessment recommends a number of mitigation measures to address this.

#### *Residential growth and access to services*

In the longer term, the Project would support the sustainable growth and development of the townships consistent with local and regional planning policy.

The Project is located to the west of Echuca and Moama, in proximity to the identified residential and commercial growth areas outlined in the *Echuca West Framework Plan* and the *Moama North-West Masterplan*. These areas would experience enhanced local access to services and facilities attracting growth and development. In particular, the Project would provide Moama residents in these growth areas with improved access to services in Echuca, and Echuca residents with improved access to recreational facilities in Moama. Improved access from Echuca to the Moama Recreation Precinct (located off Perricoota Road), which includes various regional sporting facilities, and the Moama Botanic Gardens, would help secure the Precinct's function as a regional sporting and recreational facility and increase its appeal as a location for local and regional events. These communities would also experience greater connectedness between them, through improved accessibility. Under the 'no project' scenario, these areas would be less connected; further traffic congestion and a greater distance to travel would discourage integration of these two growth areas.

Additionally, the proposed pedestrian/ cycle access which would be provided along the alignment would increase accessibility and safety for these modes of transport, in addition to the benefits for vehicles outlined above. The project 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 or cyclists on either side of the Murray River.

## 8.2 Impacts

Impacts from the project in relation to land use can generally be categorised as those relating to land acquisition and possible resultant land severance, amenity impacts on existing land uses, changes to access, and disruption to services.

### 8.2.1 Land severance and acquisition

#### *Land acquisition*

Appendix B contains a summary of the extent of acquisition and the number of properties that would be impacted by acquisition. In total, there would be 58 allotments affected by acquisition to varying extents (33 properties). Approximately 19 hectares of land would be acquired for the proposed road reserve, including almost 10 hectares of Crown land (noting that the extent of area to be acquired is subject to survey following detailed design). This acquisition would include 9 private landowners, as well as Campaspe Shire, Murray Shire, and Colliban Region Water Authority, and Crown land managed by DELWP, Campaspe Shire, and DET (including land with Crown leases such as that of the Echuca Lawn Tennis Club.

The Project would result in the acquisition of entire allotments in nine (9) instances. Eight (8) of these are on the northern side of Warren Street at the proposed roundabout near the intersection of Payne Street, near the Campaspe River. Of these eight (8) allotments, six (6) are privately owned by a single landholder and are generally in contiguous ownership. One (1) allotment is unreserved Crown land, and another is owned by Campaspe Shire. These allotments are currently undeveloped and zoned such that development potential is constrained due to flood risk. From a land use perspective, there is negligible impact as a result of acquisition of these allotments for the Project. Only one other allotment would be wholly acquired for the project. This is at the former Echuca High School site where a small (52 square metre) parcel of land that forms part of the wider former school site landholding (considered further below) is required for the Project.

A residential property at 2 Boundary Road Moama would have almost 70% of the land at the rear of the property acquired. Whilst the Project has been designed to avoid the dwelling on this property, and the land could reasonably continue to be used for residential purposes, this property is not part of a contiguous area of residential dwellings, and its appeal as a residential property would be substantially reduced. This site may be better suited for alternative use in the future however noting that it would not have direct access onto the Cobb Highway, and Boundary Road would be truncated at this intersection.

In most other instances, it is considered that acquisition of land to facilitate road construction would not result in any unreasonable short term land use impacts (other than the direct impact of land required for the roadway itself), and the current land use of the balance of the allotments and that of adjoining allotments would remain consistent with the existing land uses and current zoning controls and policies contained within the Campaspe Planning Scheme / Murray LEP. Proposed land acquisition has generally been minimised where possible. The direct area of loss would be relatively small compared with other major road projects, as the proposed road reserve is either located within the existing road reserve, or immediately adjacent and parallel in freehold land.

The Project would include the assessment of compensation where and as appropriate under the provisions of the *Land Acquisition and Compensation Act 1986* (Vic) and the *Land Acquisition (Just Terms Compensation) Act 1991* (NSW). Existing structures such as fences and driveways would require removal or relocation on some allotments, however none are expected to result in a change in overarching land use or policy inconsistency. Therefore, the impact to current land use is considered to be short term and could be mitigated through relocation of the structures, or by payment of compensation as appropriate

### *Land severance*

Severance of a property would occur when the alignment isolates an area of land through its passage through a property. This would occur through the former Echuca High School site which is Crown land managed by DET, and Victoria Park which is Crown land managed by Campaspe Shire. In both instances the Crown land allotments are part of the same contiguous wider Crown landholding associated with the Victoria Park and Campaspe/Murray Rivers precinct. Public access would be altered between these areas, however would be provided as part of the Project in appropriate locations. Confirmation of the proposed alignment would also enable updating of the *Victoria Park Master Plan*, which already anticipates the Project in this location. The alignment has been designed to avoid existing recreational infrastructure wherever possible (with the exception of the Tennis Club, discussed in greater detail at section 8.2.3), and accordingly would provide a convenient physical boundary between the existing active recreational buildings and facilities section of the precinct, and the more natural passive recreational sections of the precinct. With the provision of suitable pedestrian and vehicle access points between these areas, land severance would not unreasonably impact on the

overall designated purpose and use of land within these areas. Further consideration of land use impacts in this precinct are provided in section 8.2.3.

Land severance would also occur to a large privately owned parcel of land adjoining the Murray River in Moama. This land is flood prone and generally undeveloped bushland. Due to the undeveloped nature of the land it is unlikely that acquisition of part of this land for the Project, and the associated land severance would have a significant land use impact. Additionally, as future development potential is limited, the Project is unlikely to negatively impact on future land uses. The owner of the land has plans to establish a cultural and environmental interpretation tourism facility within the site (refer to detailed discussion in *Social Impact Assessment Report*, AECOM 2015), with motor home accommodation at the Boundary Road frontage. It is not envisaged that the Project would have any detrimental impact on this potential land use and in fact could have an enhancement effect by assisting to make the site more visible to passing traffic. The landowner 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 Bridge Arts Project (*Social Impact Assessment Report*, AECOM 2015).

#### *Crown land*

The use of Crown land for a road, in Victoria, requires the consent of the Minister for Environment and Climate Change (under section 11(2)(a) of the *Road Management Act 2004*), and to declare it an arterial road, must consult with the Secretary to DEPI (section 14(6)). Any existing licences would need to be cancelled or amended prior to the commencement of works.

### 8.2.2 Construction impacts

#### *Infrastructure land uses*

There would be some temporary impacts to utility services during construction. There are a number of services located within and adjacent to the proposed road reserve as described in 0. These would require relocation.

Impacts relating to disruption to services are considered to be temporary, and would be managed so as to minimise disruption to customers. There are other services which traverse the proposed road reserve, and detailed design of the Project would need to consider how to protect the underground infrastructure in accordance with the provider requirements.

#### *Amenity and access*

Potential land use impacts in the short term include those of amenity and access to surrounding land uses during the construction period of the Project. Such impacts are expected to include temporary road closures, increased truck movements on local roads associated with materials delivery and spoil disposal, access alterations, increased noise, dust, and vibration associated with construction works, as well as the visible presence of construction activities. While these impacts would be minimised wherever possible, and would be temporary only for the duration of construction, they cannot be avoided entirely.

In particular, there are likely to be some periods when construction noise impacts are substantial and the visible presence of construction activities would impact views from residential properties and along the Campaspe and Murray River frontages. The extent of impacts, and the measures that would be implemented to minimise traffic, visual and noise impacts during construction are outlined in the impact assessments prepared for the project which consider noise, air, traffic, vibration, and visual impacts of the project. The *Economics Assessment Report* (Essential Economics, 2015) also outlines mitigation measures to minimise

construction impacts on local businesses and tourism activities, and concludes that their implementation would reduce or remove potential business impacts.

Timely consultation and communication with the local community would assist in reducing potential inconvenience and disruption to the local community in these instances. The community and affected property owners would be consulted well in advance and kept fully informed of the timing of construction activities and of all access changes.

#### *Disruption to recreation, community and tourism land uses*

Potential impacts of the project on recreation and tourism during the construction period would be largely associated with impacts on amenity, traffic and access, as described in the previous section. In particular, the location of construction activities within Victoria Park, and the Campaspe and Murray River recreational precincts, may result in a temporary reduction in patronage of recreation and tourist sites and facilities. Construction would also have a minor impact on boating activities on the Murray River due to the presence of temporary exclusion zones around pier construction areas, although the river would generally remain open to passage by water vessels during construction.

Construction impacts would be short-term only, with access to these facilities re-established following construction. As noted previously, operators and the local community would be consulted well in advance of construction activities and be kept fully informed of the timing of construction activities and of all access changes. The *Economics Assessment Report* (Essential Economics, 2015) also outlines mitigation measures to minimise construction impacts on local river based activities, and the Southern Ski 80 event. The *Social Impact Assessment Report* (AECOM, 2015) also recommends mitigation measures to minimise construction impacts on recreation, community and tourism land uses. In particular, construction would be managed so that important events such as the Easter tennis tournament and Southern 80 ski race occur on the scheduled dates without major disruptions.

The Project may have some short term impacts on flora and fauna, waterways, and other environmental values that would impact on the amenity of Victoria Park as a natural environment. The nature and extent of these impacts are specifically considered in the other relevant specialist technical assessments prepared for the EES. Generally these impacts would be minimised through the implementation of the Construction Environmental Management Plan and would not affect the overall land use of the Park as a public recreational reserve.

### 8.2.3 Operational impacts

#### *Amenity*

In the longer term, residential and commercial properties located proximate to the roadway would experience greater levels of traffic noise and air emissions which have the potential to reduce the existing levels of amenity. The *Economic Impact Assessment* (Essential Economics, 2015) in particular highlights that there would be potential negative impacts on a small number of businesses located close to the bridge route, including Echuca Caravan Park (noise and visual), Madison Spa Resort (noise and visual), and River Country Motel (reduced access, noise and visual). The *Social Impact Assessment* (AECOM, 2015) highlighted that owners of residential dwellings are generally quite sensitive to altered acoustic and visual amenity as the result of road projects.

The extent of these impacts and proposed mitigation are outlined in the relevant specialist reports prepared for the Project. The *Economic Impact Assessment* (Essential Economics, 2015) concludes that implementation of recommended mitigation would reduce or remove potential adverse business impacts. In addition, it is expected that these residents and business operators would adjust to the changes over time. On this basis land uses would remain in

current designated locations and there would not be any significant changes to land use (although it is considered that there is one instance where a change of land use is possible – this is at 2 Boundary Road Moama, as described in section 8.2.1).

The *Landscape and Visual Impact Assessment* (Spiire, 2015) concluded that overall, the extent and significance of landscape and visual impacts of the Project is high without mitigation measures in place and moderate once mitigation measures have been in place 10 years after development.

The Noise Impact Assessment Report (Renzo Tonin & Associates, 2015) concludes that with implementation of several noise mitigation treatments, noise impacts would be within project limits, and has the potential to reduce noise impacts on nominated 'parkland areas'.

### *Access*

The Project provides suitable access for all existing properties, land uses and developments, albeit altered in some cases. Changes to access are not expected to result in any changes to land uses. For example, Boundary Road in NSW would be truncated however alternative arrangements are proposed for the turning of supermarket delivery vehicles so that access to the adjacent supermarket delivery bay located on Boundary Street remains viable via Pericoota Road. Another example is for residential properties fronting the north west side of Warren Street, which would be accessed by proposed two-way service roads that would connect to Homan and Redman Streets.

Under the ‘no project’ scenario, weight limitations on the existing Murray River crossing would continue to prohibit Higher Mass Limit (HML) vehicles, which in-turn would limit certain types of industries from establishing within Echuca. It is anticipated that the Project would benefit industrial growth (Essential Economics, 2015). The Project would provide a restriction free Murray River crossing between Victoria and NSW which could encourage larger national industries and distributors to establish in Echuca and Moama due to the ability to efficiently distribute goods locally, state wide and nationally. This would support the local agricultural sector in particular and support the further growth and development of the designated industrial growth precincts such as the South East Echuca Industrial Precinct (Essential Economics, 2015).

### *Disruption to recreation, community and tourism land uses*

Impacts on recreation and tourism land uses are generally related to construction activities. In the longer term the Project is expected to broadly benefit recreational and tourism land uses in the region, through more efficient traffic access and improved traffic flows, which is currently a major issue during peak summer and major tourist events. Impacts to specific land uses within the study area are considered below.

*Echuca boat ramp*

The proposed bridge over the Murray River would extend over part of the existing unsealed gravel car park associated with the Echuca boat ramp and require the removal of the existing public toilet block. The boat ramp would be retained, as well as associated car parking. Amenities at this location that would be removed (such as the toilet block), would be replaced in a suitable location.

Confirmation of the Project design is also expected to enable resolution of a potential location for a new ski club building in this vicinity, benefiting local water skiers and the annual Club Marine Southern 80 Water Ski Race. It is understood that the Ski Club and DEPI await the outcome of the Project, however, it is not expected that the Project would jeopardise future development of a club house in this location, but rather would enhance its accessibility.

*Victoria Park and former Echuca High School site*

Whilst the presence of the road would have a visual impact from within Victoria Park, it would also increase visibility of the park to passing traffic, potentially leading to increased awareness and patronage. The proposed cycle and pedestrian paths may also encourage increased patronage through improved access. It is proposed that pedestrians and cyclists would be able to travel the length of the new road on a shared pathway, and from this pathway, access / connection to the existing tracks within Victoria Park and the surrounding pedestrian and bicycle networks in Echuca and Moama would be provided. The *Social Impact Assessment Report* (AECOM, 2015) concludes that the Project would be unlikely to influence the level of utilisation of the Park.

Confirmation of the location of the Project through Victoria Park would enable the updating of the *Victoria Park Structure Plan*, and subsequent upgrades to facilities and infrastructure as outlined in that plan. It would also enable resolution of the future land use of the former Echuca High School site.

The Project would result in the acquisition of 6 lawn tennis courts at the western extent of the Echuca Lawn Tennis Club, altering the way that the tennis club operates. However, no additional courts would be lost as a result of the development of the ultimate alignment. Eleven (11) Lawn Tennis Court would still be available at the Echuca Lawn Tennis Club, and additional courts could potentially be gained as part of the restructure of Victoria Park. It is understood that locations for replacement courts would be investigated as part of the updated Victoria Park Master Plan, and would be rebuilt in a location to be agreed with Council and the tennis club, prior to the existing courts being decommissioned. VicRoads has been actively involved with the Council in developing a revised Master Plan for Victoria Park that considers the changes resulting from the Project.

*Echuca Caravan Park and Moama accommodation*

The Echuca Caravan Park would not be directly impacted by the Project. However, the Project would alter the existing surrounding environment. Whilst the Project would not require any land to be acquired from the Caravan Park, and it is not expected that the use of the land for a caravan park would change as a result of the Project.  However, the visual and noise impacts from the operation of the road may affect the desirability of the Caravan Park as a place to live or stay due to reduced amenity. Noise and visual impacts are considered in greater detail in the *Echuca-Moama Bridge Project, EES Noise Impact Assessment Report* (Renzo Tonin & Associates, 2015) and the *Echuca-Moama Bridge EES, Landscape & Visual Impact Assessment* (Spiire, 2015).

The Project alignment passes in close proximity to the Madison Spa Resort and recently approved Conference Centre, the River Country Inn and the Sportslander Motor Inn in Moama. Construction of the initial and ultimate alignment would not directly impact on these land uses through land acquisition. The Project would not result in any change of land use, however could have an impact on these accommodations through increased traffic noise and light (the extent of these impacts and proposed mitigation is discussed in the *Echuca-Moama Bridge Project, EES Noise Impact Assessment Report* (Renzo Tonin & Associates, 2015) and the *Echuca-Moama Bridge EES, Landscape & Visual Impact Assessment* (Spiire, 2015). Conversely, the increased passing traffic may result in improved access and visibility, possibly resulting in increased patronage (refer to *Economic Impact Assessment report,* Essential Economics, 2015).

*Lions Community Park*

The Lions Community Park in Moama is located entirely within the proposed road reserve. This is consistent with the existing situation, as the park has been developed within the existing

Cobb Highway road reserve. The existing picnic tables, shelter, barbecue could be retained for the construction of the Project, and it is likely that the Community Park would remain. The playground would be removed and relocated in consultation with the Moama Lions Club and Murray Shire Council. It would be accessed by the section of Boundary Road from the Cobb Highway, which would be truncated at the new road reserve. The *Social Impact Assessment* (AECOM, 2015) concluded that the proposed acquisition would have a negligible social impact on this park.

# 9. Conclusion

The Project would provide significant benefits to transport efficiency, access and connectivity between Moama and Echuca, supporting urban growth to the west of the townships and economic development both within these towns and the surrounding region. The Planning and Land Use Assessment confirms that the Project is consistent with policy, with both State and local policy encouraging the second crossing of the Murray at Echuca. The Project would not result in any significant changes of land use within the Project area.

The Project would result in localised property impacts associated with land acquisition on both recreational land and non-recreational (including private) land. The Project would acquire Crown Land from Victoria Park, part of the former Echuca High School site and six tennis courts, however, access to Victoria Park and the boat ramp at the Murray River would be maintained and the six tennis courts would be relocated.

The Right-of-Way for the Project has been designed to minimise the acquisition of private land and does not directly impact any dwellings with only 58 properties affected by acquisition.

Land acquisition impacts on individual land holdings are limited by virtue of the acquisition generally being located adjacent to existing boundaries or fence lines. The greatest land use impacts due to acquisition would be to Victoria Park and the former Echuca High School site, due to changes to access and amenity, and the loss of six tennis courts at the Echuca Lawn Tennis Club. The existing draft *Victoria Park Master Plan* anticipates the Mid-West Option (Preferred Option) in its current location, and will be finalised upon confirmation of the alignment, and the land use related impacts are therefore considered minimal.

Compensation for severance and land acquisition impacts would be provided where appropriate consistent with the *Land Acquisition and Compensation Act 1986*, and the *Land Acquisition (Just Terms Compensation) Act 1991,* which provide for the payment of compensation (including disruption costs) for land acquisition.

Land use and planning related issues would be generally short term and construction related, such as impacts to native vegetation, utility services and amenity impacts, which would be appropriately managed through the implementation of a Construction Environmental Management Plan. In the longer term, losses of vegetation would be offset so that there is no net loss, and operational impacts to amenity would be minimised through landscaping and noise attenuation. Access roads and pathways have been proposed to provide alternatives where existing access would be altered.

The assessment determined that the impacts of the Project on planning and land use elements of the study area would not vary substantially between the initial and ultimate alignments, given that sufficient land would be acquired for the ultimate alignment at the time of initial acquisition.

# 10. Assumptions and Limitations

GHD has prepared this report on the basis of information provided by VicRoads and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. In particular, GHD relied on the assessments of other specialists of social, economic, environmental impacts (referenced within report), in order to draw conclusions regarding the impact of the Project on land use.

GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

Additional limitations of this Report include:

- Only mapped existing infrastructure provided by VicRoads and a DBYD search was identified by the assessment. Additional infrastructure may be located within the Study Area.
- The assessment was undertaken based on a number of draft strategies and policies that may be finalised prior to the approval of the Project. The assessment is current at the time of writing.

# 11. References


AECOM (2015) *Echuca-Moama Bridge EES Social Impact Assessment Report*

Brett Lane & Associates Pty Ltd (BL&A) (2015), *Second Murray River Crossing at Echuca-Moama, Detailed Flora and Fauna Assessment*

Campaspe and Murray Shires (2014) *Regional Profile*, accessed online 5 September 2014 [http://www.murray.nsw.gov.au/images/documents/murray/New%20Site/Business_Industry/Regional%20Profile%202014_Campaspe%20and%20Murray_2.pdf]

Campaspe Shire Council (2010) Victoria Park & Environs Master Plan, accessed online 4 September 2014 [

Charles L. King & Co. First National – Echuca (2014) *33 Crofton Street Echuca Vic 3564,* accessed online 5 September 2014 [http://www.realestate.com.au/property-house-vic-echuca-104983712]

Echuca Cemetery Trust (2014) accessed online 5 September 2014 [http://www.echucacemetery.com.au/index.html#]

EES Scoping Requirements (DTPLI, 2014)

Essential Economics (2015) *Echuca-Moama Bridge Project Environment Effects Statement, Economic Impact Assessment October 2014*

Heritage Insight Pty Ltd (Heritage Insight) (2015a), *Report on an Archaeological Survey for Historic Heritage Sites, Mid-West Option, Second Murray River Crossing at Echuca-Moama: EES Existing Conditions and Impact Assessment Report*

Heritage Insight (2015b) *Report on Assessment for Aboriginal Cultural Heritage Values, Mid-West Alignment Second Murray River Crossing at Echuca-Moama*

JACOBS (2015) *Echuca-Moama Bridge EES Transport Impact Assessment*

ID (2014) *Community profile*, accessed online 5 September 2014 [http://profile.id.com.au/campaspe/home]

Macroplan Australia Pty Ltd (2009) *Moama North West Master Plan,* accessed online 10 September 2014[http://www.murray.nsw.gov.au/images/documents/murray/mig/12962-MNWMP-Report.pdf]

Murray Shire (2014a) *Our region, towns*, accessed online 5 September 2014 [http://www.murray.nsw.gov.au/our-region-murray/towns-maps-murray]

Murray Shire (2014b) *The Murray Region*, accessed online 5 September 2014 [http://www.murray.nsw.gov.au/business-and-industry-murray/the-murray-region]

Renzo Tonin & Associates (2015) ECHUCA-MOAMA BRIDGE PROJECT, *EES Noise Impact Assessment Report*, 28 November 2014

Spiire (2015) Echuca-Moama Bridge EES, *Landscape & Visual Impact Assessment*, Volume 1

Victorian Government (2014) *Loddon Mallee North Regional Growth Plan,* accessed online 5 September 2014 [http://www.dpcd.vic.gov.au/planning/projects-and-programs/regionalgrowthplans/loddon-mallee-north]

Victorian Government (2014) *Plan Melbourne*, accessed online 5 September 2014 [http://www.planmelbourne.vic.gov.au/]

VicRoads (2015) *Echuca-Moama Bridge EES, Soils and Geology Impact Assessment Report*

# Appendices

# Appendix A – Infrastructure mapbook

Scale 1:2,500 (At A3)

0 12.5 25 50 75 100

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

N

LEGEND

- Right-of-Way (ultimate duplication)

**Services**

- Electricity
- Gas
- Sewerage
- Telecommunications
- Water

VicRoads
Echuca - Moama Bridge

Existing Services

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|---|---|
| Job Number | 31-31941 |
| Revision | A |
| Date | 09 Jun 2015 |

Figure 1
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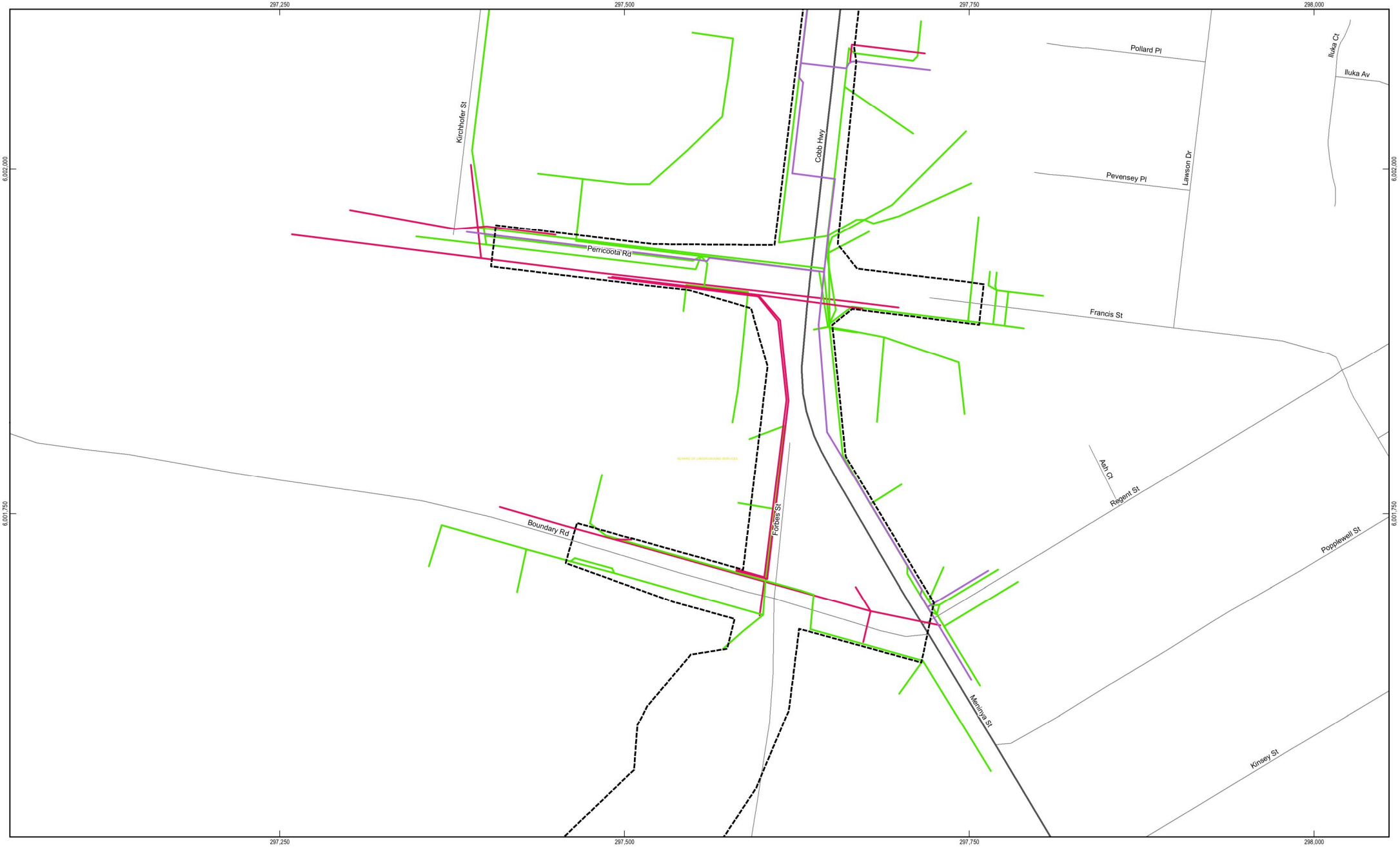


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Metres

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LEGEND

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VicRoads
Echuca - Moama Bridge

Existing Services

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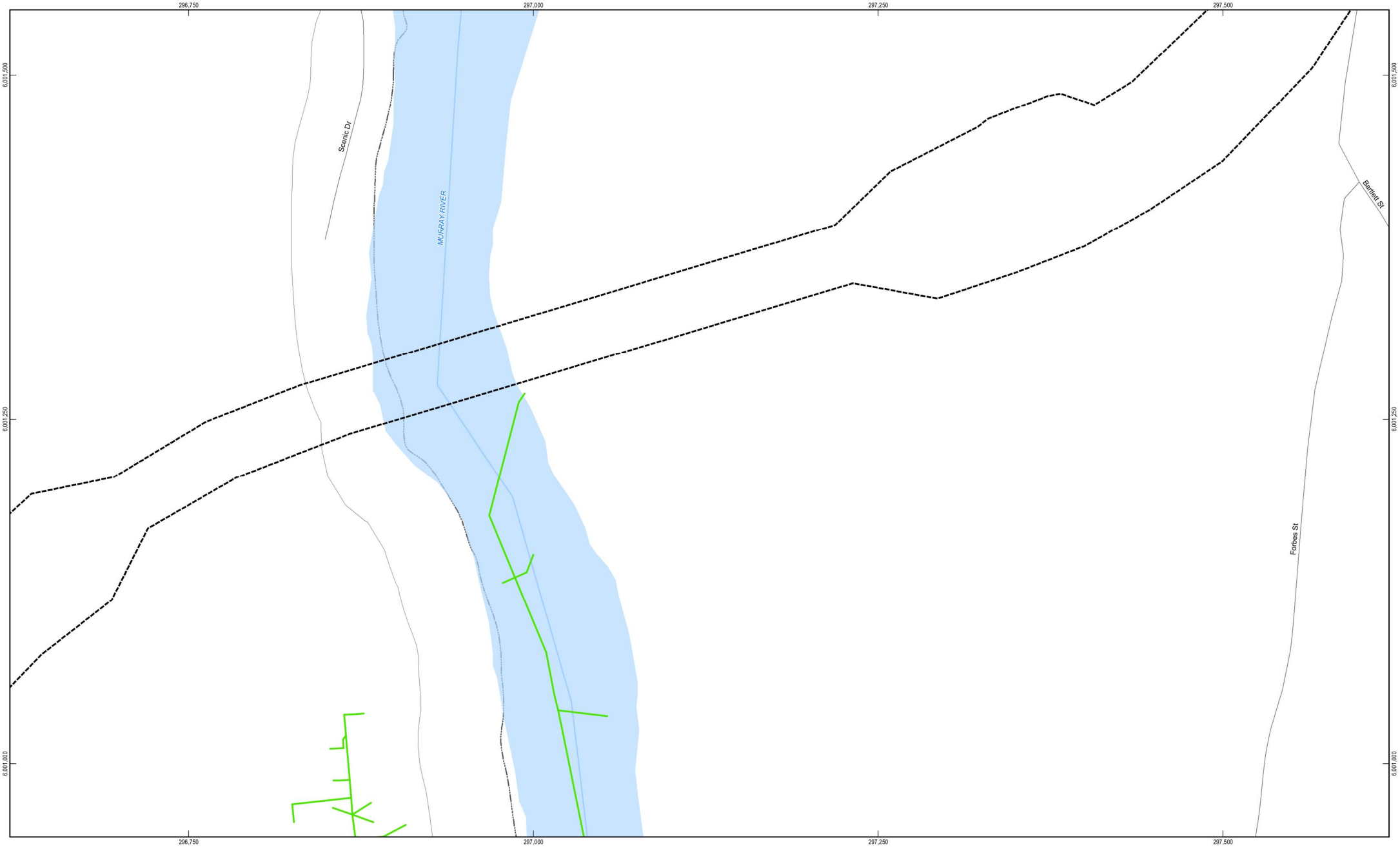


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VicRoads
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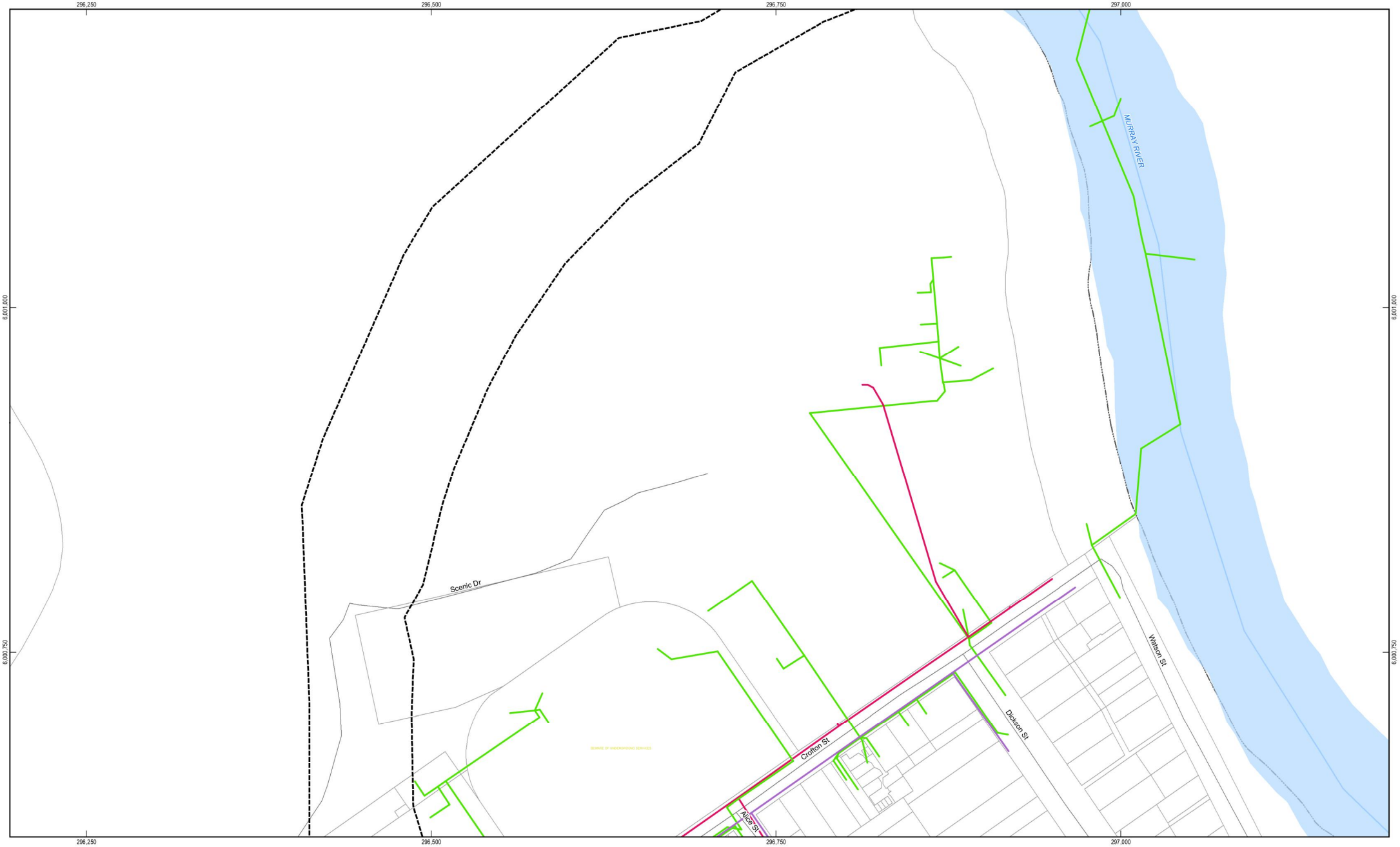


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LEGEND

- Right-of-Way (ultimate duplication)

**Services**

- Electricity
- Gas
- Sewerage
- Telecommunications
- Water

VicRoads
Echuca - Moama Bridge

Existing Services

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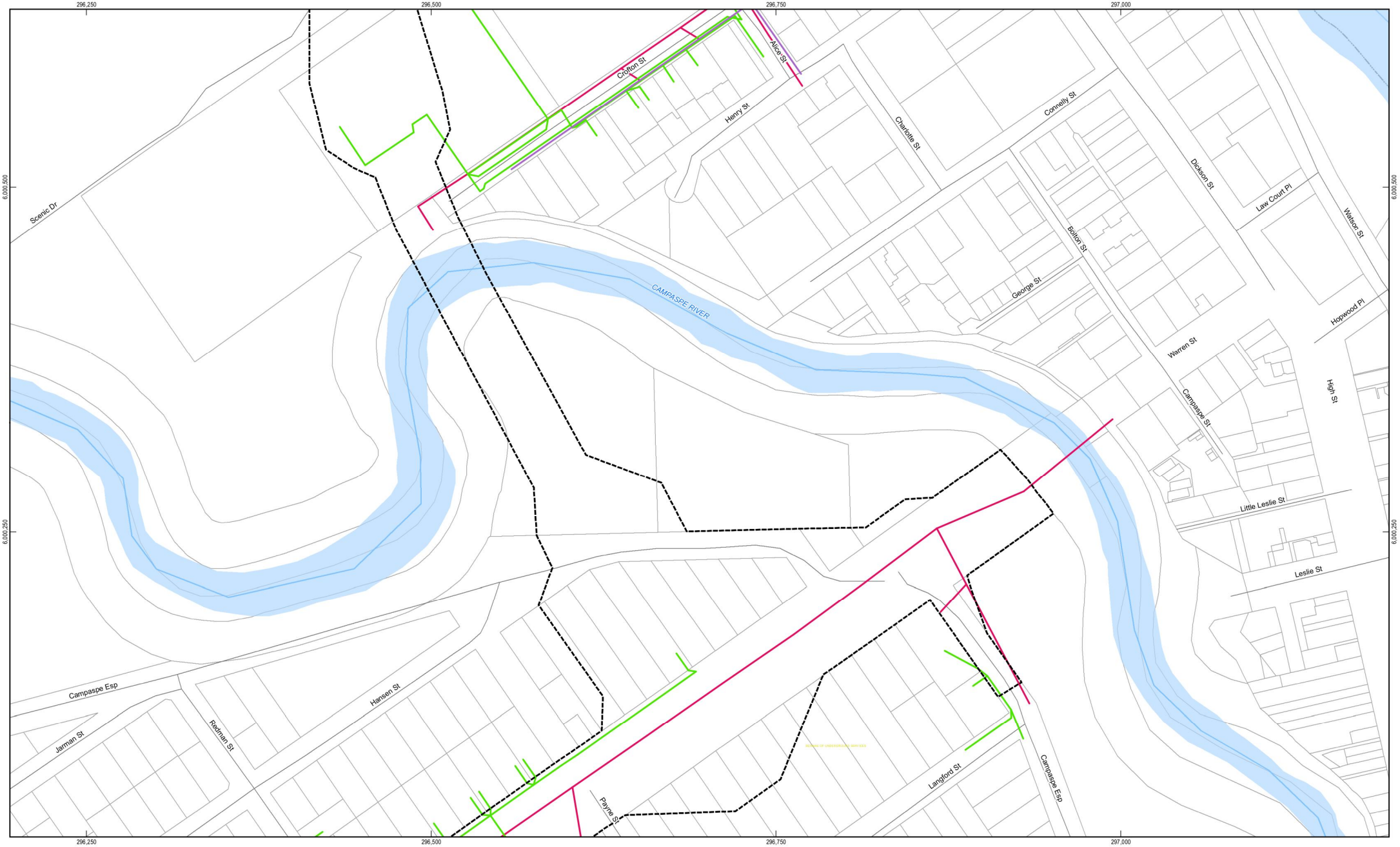


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VicRoads
Echuca - Moama Bridge

Existing Services

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VicRoads
Echuca - Moama Bridge

Existing Services

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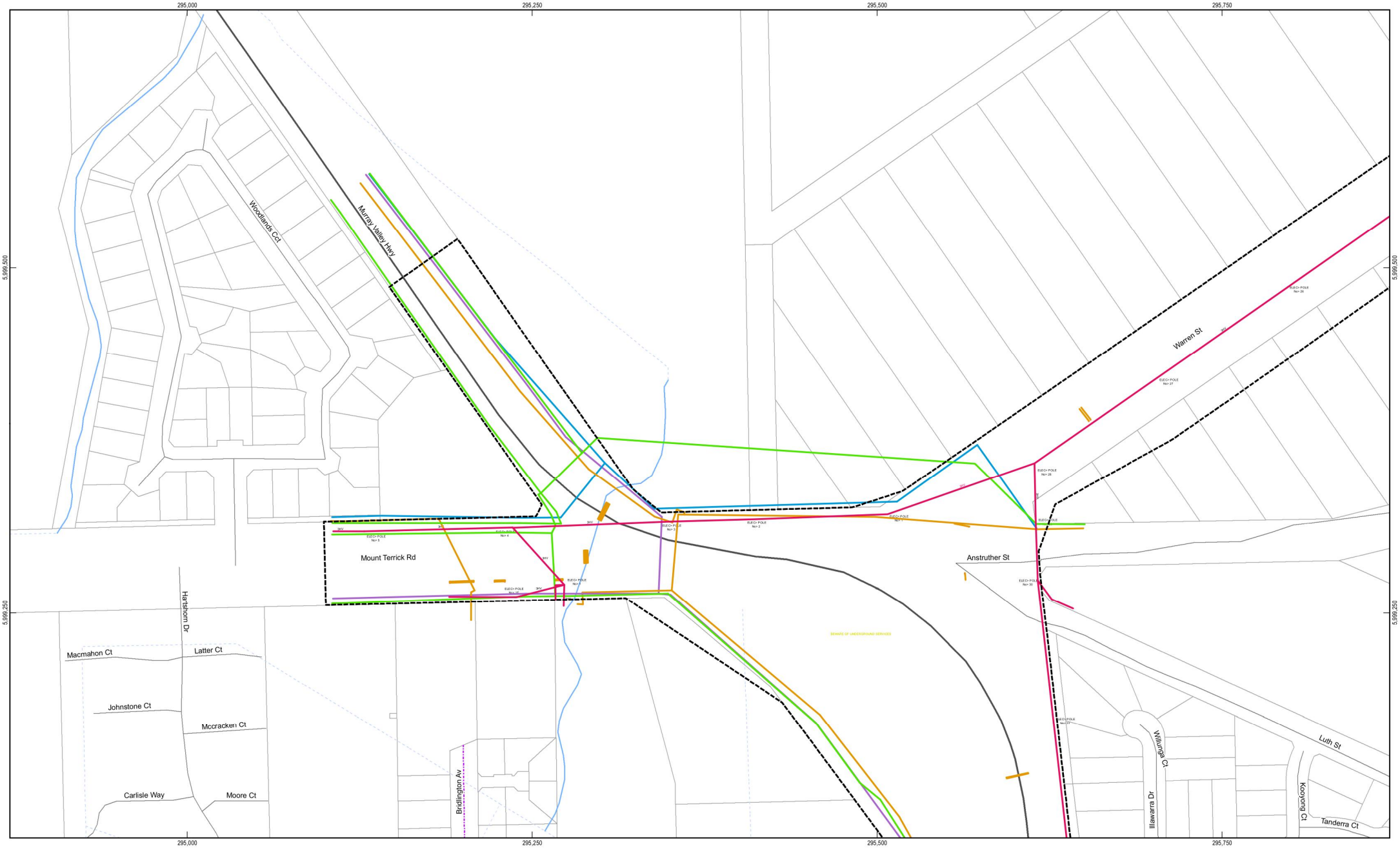


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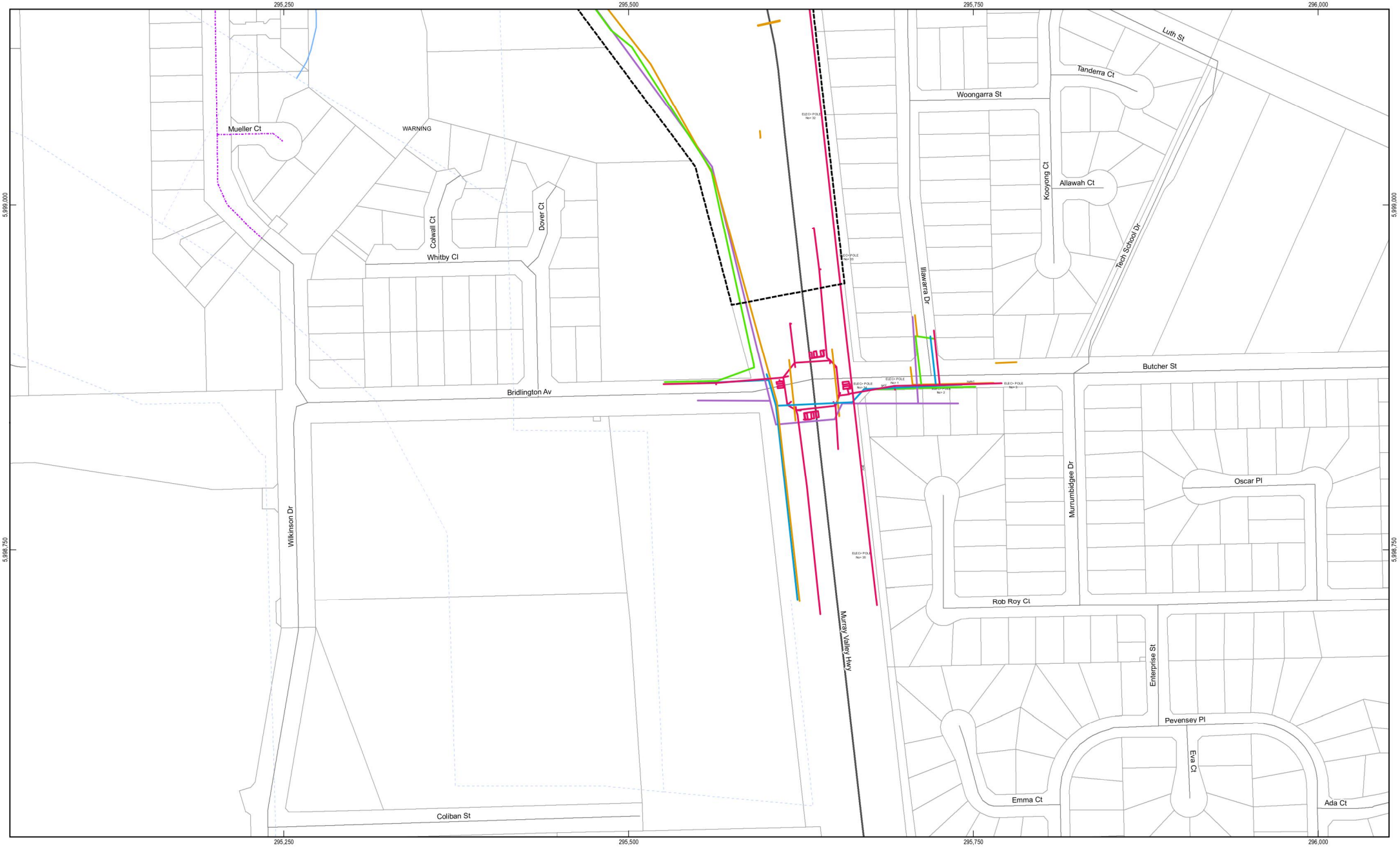


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# Appendix B – Summary of land acquisition requirements

Property Acquisition Summary

| | VIC | NSW |
|---|---|---|
| Freehold Properties | 15 | 6 |
| Crown Properties | 12 | - |
| Total Properties | 27 | 6 |
| Total Titles<br>(some titles contain more than one lot) | 51 | 7 |

GHD

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Melbourne, Victoria 3000
T: (03) 8687 8000 F: (03) 8687 8111 E: melmail@ghd.com.au

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