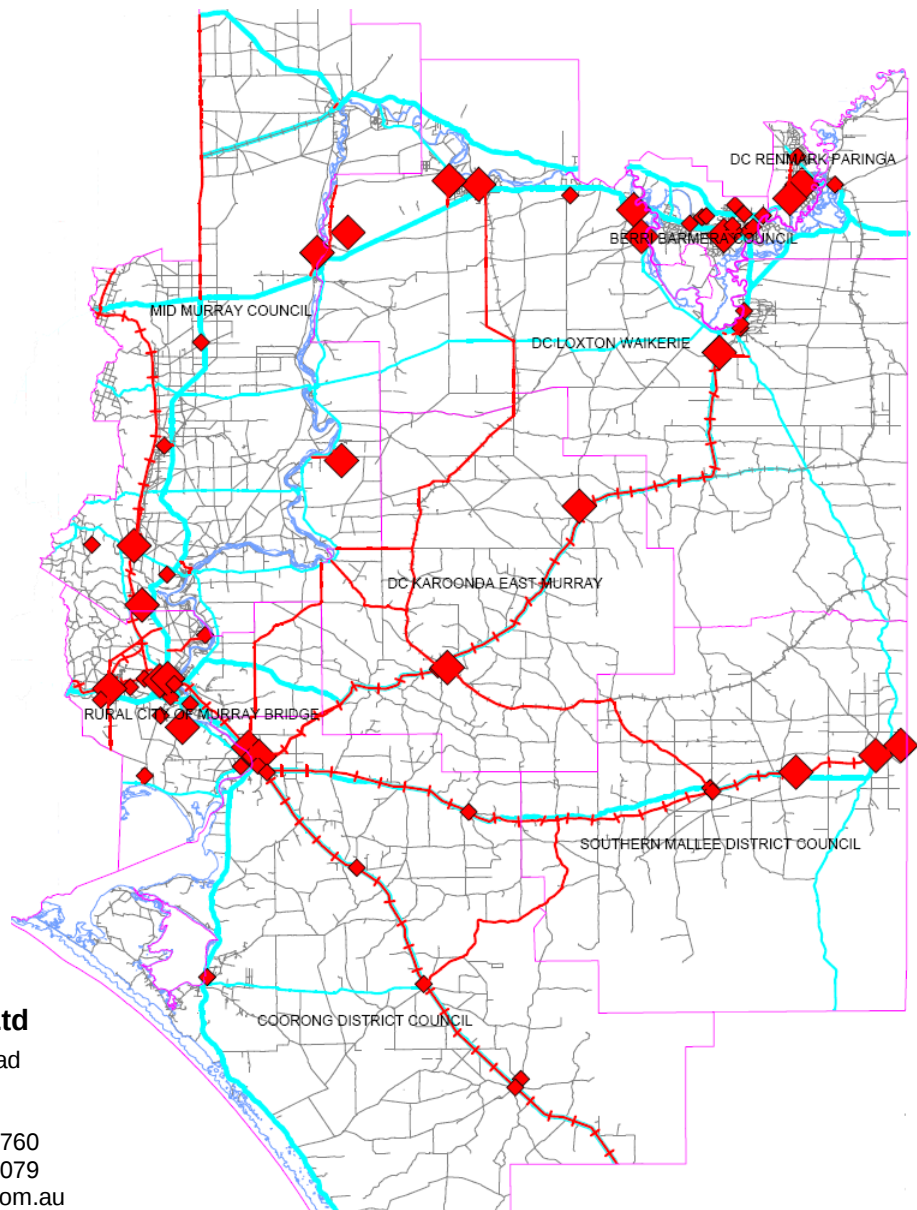


The Murray and Mallee Local Government Association

2030 REGIONAL TRANSPORT PLAN

Final Report



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- B. Draft ITLUP Murray and Mallee Region “Solutions and Actions” Statement

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- 1. 2030 Regional Transport Plan – Demand Modelling Working Paper
- 2. 2030 Regional Transport Plan – Regional Routes (as at 31 March 2014), A3 Size

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PART A

1.0 EXECUTIVE SUMMARY

1.1 Project Overview

In June 2013, HDS Australia was engaged by the M&MLGA to prepare its 2030 Regional Transport Plan. The 2030 Regional Transport Plan is a strategic level assessment of transport needs and priorities within the Region for the period from 2013 to 2030. It will officially replace the current Regional Transport Strategy (RTS).

Development of the 2030 Regional Transport Plan was undertaken by a specialist team of road transport planning and traffic engineers from HDS Australia led by John Olson, Managing Director and Principal Engineer. The team's approach used an agreed methodology developed jointly by HDS Australia and the M&MLGA, which was based upon earlier work undertaken for the Southern & Hills Local Government Association and the South East Local Government Association. The M&MLGA RTS Committee acted as a Reference Group for the project, with Peter Campbell, Chief Executive Officer of the M&MLGA, as the Client Representative.

Overall, the project entailed three distinct stages, namely:

1. Identification of Land Use and Regional Transport Demands
2. Development of Regional Transport Routes
3. Preparation of a Final Report

Each of the above stages had defined inputs, process requirements and consultancy deliverables, as required by the Project Brief and further explained under the "Project Methodology" section of HDS Australia's response to the Project Brief (see Appendix A to Enclosure 1).

Included in the first stage was a substantial study of all currently available literature reflecting state level strategic planning, regional planning and development issues, regional transport planning and local transport plans. 44 documents were initially examined, with input from a further key state government document, namely a draft release of "The Integrated Transport and Land Use Plan", subsequently included in the final report.

One interim publication was prepared during development of the 2030 Regional Transport Plan. Titled "2030 Regional Transport Plan – Demand Modelling Working Paper", it was released as a draft in August 2013, with the final version released in September 2013 and adopted at a meeting of the RTS Committee on 1 November 2013. This document is included as an enclosure to the final report.

The final report for the 2030 Regional Transport Plan is the culmination of the project. However, while released as a current summary of regional transport priorities for the next 15 years, it is recognised that the 2030 Regional Transport Plan is a "living" document which will need regular review and updating as subsequent regional planning and development initiatives influence future transport priorities.

Further details of specific tasks undertaken and outcomes achieved as part of the 2030 Regional Transport Plan development project are contained in Section 2 of the report.

1.2 Review of State and Regional Development Plans

1.2.1 Strategic Planning

The first part of Section 3 of the report reviews the strategic direction set by the state government for both South Australia as a whole and for the Murray and Mallee Region. Reference to regional areas is provided in the following commentary, extracted from the latest version of South Australia's Strategic Plan, released in 2011:

"We value the contributions our regions make to our economic prosperity, home to agriculture, forestry and fishing industries as well as an expanding mining industry. These industries together contributed \$6 billion to our economy in 2009/10. We want our regional communities to thrive through sustained growth while reaping the economic benefits of their hard work."

The (soon to be updated) State Infrastructure Plan for South Australia (SIPSA) is also examined in Section 3. Although it may soon be superseded, relevance of the current SIPSA to the 2030 Regional Transport Plan is reflected in the following "Transport Strategic Priorities":

Road

- *Improve the State's competitiveness through efficient freight transport networks and improved international links.*
- *Minimise the impact of freight vehicle movement on the community and environment by appropriately locating and protecting freight routes.*
- *Concentrate resources on maintaining and improving existing assets rather than extending the network.*

Rail

- *Encourage the shift to rail transport for passenger and freight movements where justified by environmental, economic or social imperatives.*

Air

- *Provide for the orderly expansion of facilities at regional airports to meet growing visitor and freight activities.*

SIPSA also identifies a series of specific strategic level transport projects for implementation across the state, via a Regional Overview document. Those relevant to the Region are:

- *Enhance existing priority strategic freight routes throughout the state in order to minimise community impacts of road freight.*
- *Implement the strategic town bypass policy.*

While the state government has lead responsibility for promoting, developing and evaluating these transport strategies and projects, they have a significant impact on the 2030 Regional Transport Plan.

1.2.2 Statutory Planning

The second part of Section 3 of the report examines the state's current statutory planning documentation, including consideration of regional planning. Development plans in existence for the eight councils which form the M&MLGA are examined in this section, providing a key input into the subsequent evaluation of regional freight generators.

1.3 Review of Current Transport Plans

Section 4 of the report examines several key transport planning studies covering the Region. A summary of each is provided, with further detail available in the Demand Modelling Working Paper (Enclosure 1) or the relevant reference.

1.3.1 Murray and Mallee Regional Transport Reviews 2006 and 2010

The Murray and Mallee Regional Transport Review 2006 (Reference 1) reviewed and prioritised various road transport upgrade proposals for the Region submitted by councils at that time. This was done by the use of a multi-criteria assessment scoring process and relevant supporting evidence.

The Murray and Mallee Regional Transport Review 2010 (Reference 2) reviewed and prioritised an updated list of road transport upgrade proposals for the Region submitted by councils. Changes in the region relating to agriculture, horticulture and tourist activity, which occurred as a result of the drought and the financial climate, as well as an increase in residential development and the changing needs of transport, were taken into account.

The multi-criteria assessment scoring process developed in the 2006 review and used again in the 2010 review remains relevant for regional prioritisation of road upgrade proposals which have been submitted by individual councils for funding consideration PROVIDED THAT all proposals submitted have been identified as a regionally significant transport route within the 2030 Regional Transport Plan, under one or more of the freight, tourism or community access purpose categories.

1.3.2 AusLink White Paper

The AusLink White Paper titled “Building our National Transport Future”, published in June 2004, set up the framework for the planning and funding of Australia’s national roads and railways, taking a long term strategic approach for the future. It provided an integrated corridor approach to infrastructure planning. This approach focussed on meeting future freight and passenger needs in the best way, irrespective of the transport mode.

The AusLink White Paper encouraged strategic planning at the regional level. AusLink regional funding was therefore designed to encourage and reward collaborative and strategic planning approaches – especially those which enhance the connections between local, state and national networks and those which are responsive to improved freight logistics.

1.3.3 Regional North South Transport Corridor

The Regional North South Transport Corridor report, prepared in February 2006, looked at a cross regional strategic freight transport route which would have national, state and regional significance. The report clearly defined the route and identified strategic impetus and transport demand for the proposed upgrade of the roads involved.

The report stated that upgrade of the roads proposed to form the Regional North South Transport Corridor would link three major state and national freight corridors, namely the South East Freeway, the Sturt Highway and the Morgan to Burra Road. The report went on to discuss the increase in freight that the Region will have over the coming years and the response of both operators and users that indicated they would utilise the corridor. Furthermore, it discussed the support of local and state governments in increasing the significance of the roads that make up the corridor to ensure that they receive funding.

1.3.4 Melbourne-Adelaide Corridor Strategy

One of the key components of the AusLink White Paper process was the development of a strategy for each corridor of the AusLink National Network. The Melbourne – Adelaide Corridor Strategy is aimed at long term development of this important transport corridor. It was prepared

in 2007. The strategy provided guidance to decision makers and planners on the direction for development of the corridor over the next 20 to 25 years.

Short-term priorities included in the Melbourne-Adelaide Corridor Strategy which are relevant to the 2030 Regional Transport Plan centre around the following strategic issues:

- the safety of passenger and freight movements along the corridor;
- the condition of the ageing road and rail infrastructure, which affects safety and efficiency;
- planning for longer-term management of transport issues in growth areas between Murray Bridge and Adelaide; and
- improvements of the rail corridor to increase the capacity and competitiveness of rail.

In response, Department of Planning, Transport and Infrastructure (DPTI) undertook an extensive study in 2009 to determine appropriate treatments to address the aims of the strategy. The approach chosen was to deliver a program of works to produce the most cost effective and widespread improvements to safety along the whole length of the Dukes Highway.

1.3.5 Northlink – Adelaide Rail/Road Bypass – Various Studies

The Northern Rail Bypass of Adelaide (now known as Northlink and incorporating a road freight corridor as well) was first proposed by Australian National in 1983. Further references to the rail bypass occur in a 1999 Rail Links Report to the SA Parliament by the then Environment, Resources and Development Committee, in the 2001 Australian Rail Track Corporation (ARTC) Interstate Rail Network Audit and in a 2001 investigation by the Rail Cooperative Research Centre.

The rail bypass was again considered as part of a report titled “South Australian Rail Freight – A Bypass to Save the Heart of Adelaide” commissioned in 2007. The report concluded with a clear recommendation to consider a freight train bypass of Adelaide as the long term solution for improvement of rail freight movement between Melbourne, Adelaide and Perth/Darwin.

The Adelaide Rail Freight Movements Study was commissioned by the Australian Government to consider in more detail various options for improvement of rail freight movement through the Adelaide Hills and metropolitan Adelaide. The final report of the study concluded that, while all options considered were technically feasible, none were found to be economically justifiable at this point in time. However, it further noted that very large projects may not always deliver positive net benefits, unless consideration is given to the network-wide impact of such investment.

The latest report in relation to the rail bypass of Adelaide, titled “Northlink – Getting SA on Track” was published in December 2010. The Northlink report concluded that there were considerable benefits to the bypass proposal beyond the efficient movement of freight, and that further investigation of the rail bypass proposal was warranted.

1.3.6 Road Classification Guidelines in South Australia

Released in July 2008, “Road Classification Guidelines in SA” was prepared by the Local Roads Advisory Committee on behalf of the Local Government Association of South Australia and DPTI. It provides the most recent and most comprehensive set of definitions for the classification of roads throughout South Australia as “Arterial” or “Local”. It also provides a fundamental definition of “Key Towns” and “Important Centres” based upon “ABS Census of Population and Housing” data.

1.4 Regional Transport Routes

1.4.1 Freight

Section 5 of the report summarises key land use and freight demands in the Region. Sources of freight movements comprise two fundamental types, namely (1) individual properties throughout the Region and (2) industrial and logistics zones in Key Towns and Important Centres. A summary of predicted freight generation demands, identified from each individual council's Development Plan, as well as from discussions with council representatives and the RDA Murraylands and Riverland, is provided in the table in Section 5.1.

Section 5 also examines freight capacity and safety issues, plus defines "Regional Freight Routes" under separate classifications of "regionally significant" and "locally important". The term "large volume of heavy freight vehicles", as contained within the December 2001 Roads Infrastructure Database (RID) Project Report (Reference 3), is clarified so that measured or predicted heavy vehicle traffic volumes and/or freight tonnages can be used to objectively define freight routes as regionally significant or locally important.

Regional freight routes have been presented as a regional overview, together with council wide maps for greater clarity and, where needed, detailed maps for key towns. All maps are included at A4 size in Appendix A of the report, while a separate volume of A3 sized maps is also available as Enclosure 2.

1.4.2 Tourism

Section 6 of the report addresses tourism demands in the Region by examining in some detail various state and regional tourism publications. Section 6 defines tourism demands in terms of economic benefit to the state, region and local community. A summary of total visitor numbers and accommodation nights highlights the significance of the Region as a tourist destination, not only for interstate visitors (where the average stay is 3.5 nights for the Murraylands sub-region and 3.0 nights for the Riverland sub-region), but for international visitors (with an average stay of over 13 nights for the Murraylands sub-region and over 26 nights for the Riverland sub-region).

From information contained in the South Australian Tourism Commission publication "Regional Tourism Profiles for South Australia" (Reference 31), the combined Murraylands and Riverland visitor numbers (i.e. for the Region as a whole) rank third behind Adelaide and the Limestone Coast for interstate visitors and fourth behind Adelaide, Fleurieu Peninsula and Yorke Peninsula for intrastate visitors.

A methodology for defining regional tourism routes is detailed in Section 6. Based upon this methodology, regional tourism routes have been presented as a regional overview, together with council wide maps for greater clarity and, where needed, detailed maps for key towns. All maps are included at A4 size in Appendix A of the report, while a separate volume of A3 sized maps is also available as Enclosure 2.

1.4.3 Community Access

Section 7 of the report identifies community access demands based upon current population, expected future growth in population under the current state strategic plan, consideration of demographic shifts and availability of essential regional services covering education, health, finance (banking), recreation and emergency services.

The second part of Section 7 details a methodology for defining regional community access routes, using a combination of community size and availability of essential services. Based upon this methodology, regional community access routes have been presented as a regional overview, together with council wide maps for greater clarity and, where needed, detailed maps for key towns. All maps are included at A4 size in Appendix A of the report, while a separate volume of A3 sized maps is also available as Enclosure 2.

1.4.4 Non-Roads Transport Considerations

Section 8 of the report examines public transport issues, along with rail, sea and air transport infrastructure. Key conclusions are:

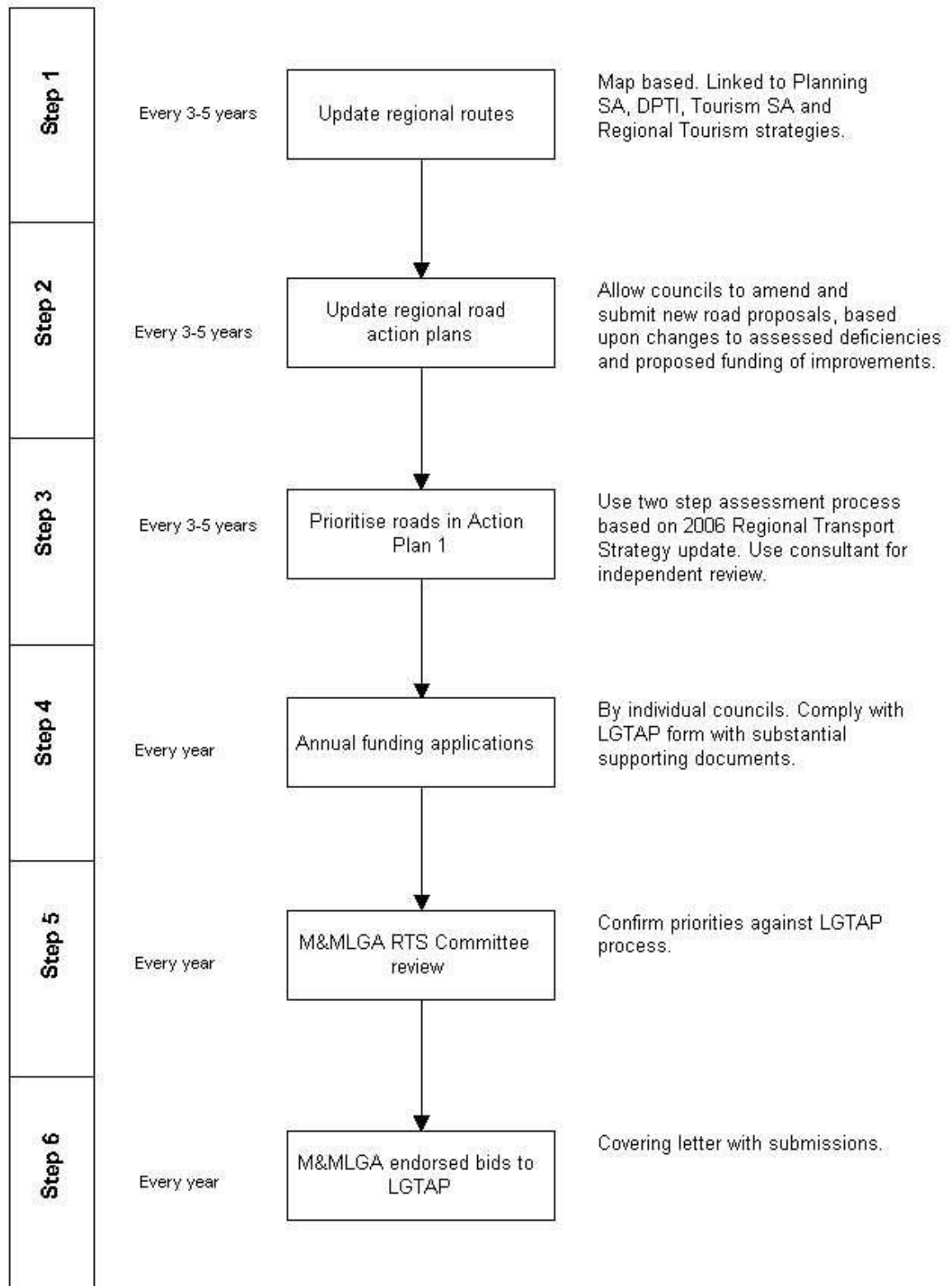
- Public Transport – The current state government policy for public transport in South Australia is mainly focused on revitalisation for the higher demand centres in the Adelaide Metropolitan area, with partially subsidised limited operation regional transport by private contractors in the regions. The majority of councils in the M&MLGA consider that existing public transport services are inadequate.
- Current Rail Freight Facilities – Major rail freight movements are centred on the Adelaide to Melbourne line, which runs across the bottom of the Region, generally along the Dukes Highway alignment. This is a long haul freight line which has limited ability, and is generally not economically viable, to load/unload general freight along the rail route. However, grain silo storage and train loading facilities at various sites along the route, most notably Viterra Tailem Bend, are utilised for shipment of large quantities of grain by rail. Some of these road/rail intermodal facilities are major industry centres (handling in excess of 50,000 tonnes per annum of grain). Additional rail freight operations along the Tailem Bend to Pinnaroo rail line and the Tailem Bend to Loxton rail line also support bulk grain movements from the principal Viterra storage sites at Lameroo, Pinnaroo, Karoonda and Loxton.
- Future Rail Freight Option – The Northlink rail bypass remains a highly supported future infrastructure project. It would run from Murray Bridge and/or Monarto to Truro and then into northern Adelaide. Regional Development Australia strongly supports this project along with a significant majority of councils in the M&MLGA. A parallel freight road is also proposed to make interstate road freight movement more efficient by bypassing the Adelaide metropolitan area.
- Air Freight Considerations – There is an area zoned as an airport at Monarto in the Rural City of Murray Bridge. It has been flagged initially as a potential air freight terminal serving the national logistics centre at Monarto, but may also become an “Outer Adelaide Airport” at some stage in the medium to long term (but not likely in the 20 year timeframe of the 2030 Regional Transport Plan).
- Other Aerodromes and Airstrips: These exist at a number of major centres around the Region, including Murray Bridge, Waikerie, Loxton and Renmark. All are primarily available for use by RFDS, private aircraft and charter flights. Likely future passenger numbers are insufficient to justify major upgrades to these sites, except at Renmark where the council has prepared a number of submissions for re-establishing Renmark Airport as a viable destination for regional passenger services and potential “fly-in fly-out” charter services.
- Ferries – The Region’s road network is heavily reliant upon the River Murray ferries, operated by DPTI, to enable effective movement of freight, tourists and local commuters throughout all areas within the Region. From Wellington in the south to Lyrup in the Riverland, these ferries are critical road infrastructure. Even though the continued operation and effective maintenance/renewal of the ferries is a DPTI responsibility, they form an essential component of the 2030 Regional Transport Plan.

1.5 Review and Update of Regional Transport Plan

Section 9 of the report outlines the methodology for review and update of the 2030 Regional Transport Plan, along with preparation and submission of annual Special Local Roads Program (SLRP) or other funding applications. The methodology recognises that the 2030 Regional Transport Plan should be a “living” document, which periodically takes into account changes in planning and development needs, along with revised priorities for the road proposals submitted by individual councils.

A flow chart depicting the methodology is shown below and also in Section 9.2 of the report.

2030 REGIONAL TRANSPORT PLAN METHODOLOGY FOR REVIEW AND UPDATE



1.6 Regional Road Action Plans

Section 10 of the report describes the methodology for creation and periodic update of three Regional Road Action Plans. These action plans list immediate, medium term and long term requirements for improvement of all regional freight, tourism and community access routes identified in the 2030 Regional Transport Plan. The action plans are generated by each council undertaking a broad “fit-for-purpose” assessment of the condition of each regional route, based upon the four fit-for-purpose categories listed in Section 4 of the SLRP Standard Funding Application Form, namely:

- Speed Environment
- Dimensions
- Geometry
- Strength/Durability

Each regional route (or section of route where a significant change in road purpose or road standard occurs) is broadly assessed for compliance with its fit-for-purpose standard, based upon the road’s purpose(s). Against the above four categories (i.e. not broken down any further) an assessment of “Compliant”, “Minor Deficiency” or “Major Deficiency” is noted. A “Minor Deficiency” is defined as failing to meet the fit-for-purpose standard, but not in such a way as to affect the functional performance of the road or its inherent safety for the road user or its economic value to council and the community. A “Major Deficiency” is defined as failing to meet the fit-for-purpose standard to such a degree that the road is unable to safely and/or economically perform its purpose(s), requiring constant intervention by the responsible council using a suitable risk mitigation strategy.

Once the above assessment is complete, each regional route (or section of route) is listed on one of the following three action plans, or remains on a fourth list of roads with two parts, namely either “assessed as fit-for-purpose” or “not yet assessed”.

1.6.1 Action Plan 1 – Immediate Priority (0 to 5 Years)

Roads on this list are regional routes exhibiting one or more major deficiencies in fit-for-purpose standard, the upgrade of which councils have included in their five year capital works programs. Initial budget allocations for these proposed upgrades are included in the action plan.

The starting point for Action Plan 1 is any outstanding road upgrade proposals which were assessed and prioritised under the 2010 RTS Review (Reference 2), provided that the road remains classified as a regionally significant route under the 2030 Regional Transport Plan.

1.6.2 Action Plan 2 – Medium Term Priority (6 to 10 Years)

Roads on this list are regional routes exhibiting at least one major deficiency in fit-for-purpose standard, the upgrade of which councils have not been able to include in their five year capital works programs, but for which an on-going risk mitigation strategy is in place for addressing any major deficiency.

1.6.3 Action Plan 3 – Long Term Priority (11 Years and Beyond)

Roads on this list are regional routes exhibiting no major deficiency, but one or more minor deficiencies in fit-for-purpose standard, the upgrade of which councils acknowledge is unlikely to occur in the next 10 years unless circumstances change significantly (e.g. road purpose, traffic volumes, further deterioration in standard, available funding).

1.6.4 Regional Roads Considered Fit-for-Purpose or Not Yet Assessed

All remaining regional freight, tourism and community access roads, as identified in the 2030 Regional Transport Plan, which currently meet all fit-for-purpose standards (i.e. exhibit no major or minor deficiency), or have not yet been assessed for deficiencies, are part of this list.

1.7 Conclusions and Recommendations

1.7.1 Regional Transport Goals

In developing a regional transport strategy for the Murray and Mallee Region, the following six regional transport goals were formulated. These goals were the subject of discussion and refinement at the RTS Committee meeting held on 30 August 2013, and were subsequently adopted by the RTS Committee at its following meeting on 1 November 2013.

Goal 1 – Economic Development

- A transport system that supports economic, industry and trade development across the Murray and Mallee Region.

Goal 2 – Access

- An equitable and accessible transport network that allows for consistent and reliable travel, with the capacity to use roads for their intended purpose.

Goal 3 – Road Safety

- A safe transport network where the severity and risk of accidents is minimised, and where speed limits are applied to fit community need not road standard.

Goal 4 – Tourism

- Promote and assist regional tourism, by improving road access to tourist sites and developing a network of well signed tourist routes.

Goal 5 – Public Transport

- Continued development of a public transport system commensurate with the needs of the Murray and Mallee Region, including subsidisation of regional bus services on an equitable basis to metropolitan bus services.

Goal 6 – Environment

- A transport network that minimises adverse impacts on the environment and communities.

Consistent with the above goals, the following objectives have underpinned the process of developing the 2030 Regional Transport Plan:

- Establish consistent regional road transport links within the Murray and Mallee Region which are of an appropriate “fit for purpose” standard.
- Develop a network of regional freight routes for heavy vehicles which complement the state government managed arterial road system by linking current and future significant sources of freight to their planned destinations.
- Reduce the impact of heavy vehicle movements through key centres, using township bypasses or by adopting appropriate traffic management within townships where a bypass is not feasible.
- Reduce the number of commercial vehicles on the road network by facilitating the safe operation of higher productivity vehicles.

- Ensure intermodal facilities, such as grain storage and handling sites, can operate in a safe and efficient manner.
- Reduce potential conflict between freight, tourism and community access users of the road network, particularly at intersections.
- Promote and assist regional tourism, by improving road access to tourist sites and developing a network of well signed tourist routes.
- Maintain and, as needed, upgrade existing ferry operations across the River Murray to ensure they remain an essential component of the regional tourism and community access networks.
- Ensure that all communities in the Murray and Mallee Region have safe and reliable access to essential community services such as health, education, financial services, recreation facilities and emergency services.
- Upgrade regional airports where economically feasible, particularly Monarto as an important freight facility and Renmark as an important community access facility, but also other aerodromes and airstrips for use by essential services such as RFDS and for fire-fighting, along with commercial applications including banking and high value freight.
- Improve public transport facilities within the Murray and Mallee Region by:
 - expanding the subsidised Provincial City Bus Service to include key towns such as Renmark, Berri and Loxton;
 - ensuring that subsidies for Integrated Regional Transport Services are more equitable in relation to metropolitan public transport subsidies; and
 - making better use of school bus infrastructure for other services during the day.
- Encourage commuter cycling within key towns and important centres, as well as tourist cycling for selected routes, particularly along the River Murray.

1.7.2 Roads of Regional Significance – Guiding Principles

Six key recommendations were included in the 2030 Regional Transport Plan Demand Modelling Working Paper. These recommendations defined the principles for development of regional transport routes in the Murray and Mallee Region. They were discussed at the RTS Committee meeting held on 30 August 2013, and were subsequently adopted by the RTS Committee at its following meeting on 1 November 2013.

1. Regionally significant freight routes have initially been developed by connecting major industry centres with the state freight routes identified in the DPTI publication “A Functional Hierarchy for SA’s Land Transport Network”, while confirming that such routes are appropriately gazetted and shown in DPTI’s online RAVnet mapping system.
2. Councils have been able to nominate additional local roads as “regionally significant” or “locally important” freight routes based upon connection to an identified minor industry centre or as part of a broader rural region generating freight, provided that the number of B-Double or semi-trailer movements (and therefore total annual tonnage) complies with the respective definitions contained in Section 5.2.
3. Regionally significant tourism routes have initially been developed by mirroring the major tourist routes promoted in state and regional tourism publications, as confirmed in the DPTI publication “A Functional Hierarchy for SA’s Land Transport Network”. Consideration should also be given to any route used by a 40 seat tourist bus.

4. Councils have been able to nominate additional local roads as regional tourism routes using locally generated information to show that a significant (i.e. 100 plus) number of visitors see the site every day or that the route is the main access to a River Murray holiday shack community of at least 100 people. Designated scenic drives indicated in regional promotional material have also been included under this category.
5. Regional community access routes have initially been developed based upon 2011 census population data which identified all Key Towns (3000+), Important Centres (1000 to 3000) and Large Communities (100 to 1000), combined with access to the five essential services of education, health, finance (banking), recreation and emergency services.
6. Councils have been able to nominate additional local roads as regional community access routes either because a Small Community (50 to 100) is particularly isolated, or because a section of road leading to a major service centre supports a population of at least 100 dispersed over various farms and micro communities which concentrate road movement as they near the service centre.

1.7.3 Recommendations

The following six recommendations were endorsed by the M&MLGA RTS Committee at its meeting on 21 February 2014 and will be presented for formal adoption at the General Meeting of the M&MLGA to be held on 4 April 2014:

1. Regional transport goals developed as part of the 2030 Regional Transport Plan, as listed in Section 11.1 of this report, be adopted as the Regional Transport Goals for the 2030 Regional Transport Plan.
2. Regional freight routes, as shown on the regional overview, council wide maps and selected township detail maps in Appendix A and Enclosure 2, and regional tourism routes, as shown on the regional overview, council wide maps and selected township detail maps in Appendix A and Enclosure 2, and regional community access routes, as shown on the regional overview, council wide maps and selected township detail maps in Appendix A and Enclosure 2, all along with the underpinning definitions and methodology used to create the routes (as described in Sections 5, 6 and 7 respectively of this report) be adopted as part of the 2030 Regional Transport Plan.
3. Non-roads regional transport considerations, as presented in Section 8 of this report, be adopted as a basis for further investigation and development of specific initiatives for improving public transport, rail freight and air transport infrastructure where economically viable to do so, while also recognising the continued role of the River Murray ferries as an essential part of the regional transport network.
4. The methodology for review and update of the 2030 Regional Transport Plan, along with preparation and submission of annual Special Local Roads Program or other funding applications, as summarised by the flowchart shown in Section 9.2 of this report, be adopted as a key element to ensure that the 2030 Regional Transport Plan remains current and relevant to the region's transport planning needs.
5. Regional road action plans, highlighting immediate, medium term and long term requirements for improvement of all regional freight, tourism and community access routes identified in the 2030 Regional Transport Plan, be developed in accordance with the guidelines and sample spreadsheet shown in Section 10 of this report, with completion by mid 2014.
6. The first scheduled strategic review of the regional freight, tourism and community access routes identified in the 2030 Regional Transport Plan be set down for mid 2017 (i.e. three years after release of the final report).

A further recommendation was discussed at the M&MLGA RTS Committee meeting held on 21 February 2014 and will be presented for formal adoption at the General Meeting of the M&MLGA to be held on 4 April 2014:

7. In consideration of the content, recommendations and updated information contained in the 2030 Regional Transport Plan, coupled with the number of roads either completed or reaching end stage construction, all roads listed in Action Plan 1 (once created under Recommendation 5) be formally reviewed using the 2006 RTS two step assessment process, in order to create a new prioritised list of roads for consideration under the annual SLRP funding application process.

PART B

2.0 INTRODUCTION

2.1 Regional Overview

The Murray and Mallee Local Government Association (M&MLGA) is a Regional Association of Councils under Part 4 of the Constitution of the Local Government Association of South Australia. The M&MLGA is now constituted as a Regional Subsidiary under Section 43 and Schedule 2 of the Local Government Act 1999, formed by the Rural City of Murray Bridge, District Councils of Karoonda East Murray, Loxton Waikerie and Renmark Paringa, and the Berri Barmera, Coorong, Mid Murray and Southern Mallee Councils.

The Murray and Mallee Region (the Region) is located in the Murraylands Statistical Region in eastern South Australia and is dissected by the River Murray. It covers an area of 53,938 km², from the Riverland in the north, agriculture areas in the central, west, south and east along the Victorian border, and south westerly to the coast and lakes. Rural based communities throughout the area share a common interest in agriculture/horticulture, with towns primarily servicing the farming and horticultural communities and supporting a growing tourism sector. The Region has a population base of 70,771 according to the Australian Bureau of Statistics 2011 Census of Population and Housing (approx. 4.6% of the state population). Reference 43, Pages 36 to 38, provides further details about the Region's current and likely future population and age profile.

The River Murray, and its associated wetlands and wildlife, Lake Bonney and a number of National/Conservation Parks, support a range of rare and endangered plant and animal species, and are major tourist attractions throughout parts of the Riverland and the Mallee. The river travels from the north of the Region, and passing through seven of the M&MLGA councils, flows into Lake Alexandrina in the south. It supports a number of tourist and recreation activities, with several tourism vessels operating from centres along the river.

Towards the coast, the Coorong National Park, Lake Alexandrina and the shores of Lake Albert are all well known tourist attractions, particularly for recreational boating and fishing.

Murray Bridge provides regional services to the lower parts of the Region and supports both an industrial and commercial base. A smaller industrial/commercial base operates collectively from the Riverland regional towns of Renmark, Loxton and Berri.

The Region is serviced by the South Eastern Freeway, Princes, Dukes, Sturt and Mallee Highways, with Karoonda Road (running from Loxton to Murray Bridge) providing the main link diagonally across the Region.

The M&MLGA works closely with its major regional partners, namely the Murray and Mallee Regional Coordination Network, and the Regional Development Australia (RDA) Murraylands and Riverland Board, to develop a sustainable future for the Region.

2.2 Background

The original Regional Transport Strategy (RTS) covering the Region, together with development of a transport infrastructure multi-criteria assessment database, was prepared for the M&MLGA in 2002. An RTS Committee, comprising elected and/or staff representatives from the eight M&MLGA councils, was formed at the same time. Subsequent reviews of the RTS were conducted in 2004, 2006 (Reference 1) and 2010 (Reference 2).

The purpose of the RTS was to establish a process by which individual councils (and the M&MLGA as a whole) could review their transport priorities and develop an overall RTS for roads and other transport infrastructure in the Region. A database was developed and used to score transport priorities under various criteria, based on guidelines developed in 2001 for the

then Local Roads Advisory Committee as part of the State Government's Special Local Roads Program (Reference 3).

The 2006 RTS Review included development of a second stage of assessment for each transport priority, to address additional criteria identified by M&MLGA councils as being particularly relevant to the overall prioritisation and funding allocation process. The culmination of the two stages of assessment has subsequently been used as the tool for final determination of the M&MLGA's annual transport infrastructure priorities for Special Local Roads Program (SLRP) funding in particular, and potentially also for other available regional transport funding opportunities.

The 2010 RTS Review reassessed transport priorities for the region, taking into consideration changes in the region since the previous review. This included changes in agricultural, horticultural and tourist activity due to the effects of the on-going drought at that time and the global financial crisis, as well as increasing residential development and the changing needs of the transport chain. Revised transport priorities were developed, which then formed the basis for determination of the M&MLGA's subsequent annual submissions for SLRP funding.

2.3 Project Overview

In June 2013, HDS Australia was engaged by the M&MLGA to prepare its 2030 Regional Transport Plan. The 2030 Regional Transport Plan is a strategic level assessment of transport needs and priorities within the Region for the period from 2013 to 2030. It will officially replace the current RTS.

Development of the 2030 Regional Transport Plan was undertaken by a specialist team of road transport planning and traffic engineers from HDS Australia led by John Olson, Managing Director and Principal Engineer. The team's approach used an agreed methodology developed jointly by HDS Australia and the M&MLGA, which was based upon earlier work undertaken for the Southern & Hills Local Government Association and the South East Local Government Association. The M&MLGA RTS Committee acted as a Reference Group for the project, with Peter Campbell, Chief Executive Officer of the M&MLGA, as the Client Representative.

Overall, the project entailed three distinct stages, namely:

1. Identification of Land Use and Regional Transport Demands
2. Development of Regional Transport Routes
3. Preparation of a Final Report

Each of the above stages had defined inputs, process requirements and consultancy deliverables, as required by the Project Brief and further explained under the "Project Methodology" section of HDS Australia's response to the Project Brief (see Appendix A to Enclosure 1).

2.4 Stage 1 Tasks

As outlined in Appendix A to Enclosure 1, an initial understanding of regional transport demands for the Region was gained from a review of the original M&MLGA Regional Transport Strategy and its subsequent updates, along with all other relevant transport planning documentation which has been published over the last ten years. This review of core transport demands (sources and destinations) for freight, tourism and community access requirements in the Region was undertaken as the initial component of the project.

The first stage of the project therefore entailed the following tasks (all of which are further explained in Appendix A to Enclosure 1):

1. A study of all currently available development plans and associated transport plans was carried out, summarising research undertaken against the three regional transport "purpose" categories of freight, tourism and community access.

2. Additional research in relation to tourism demands was undertaken.
3. Independent research into the current and anticipated future location of employment, education, health, finance, recreation and emergency services relative to residential centres was undertaken, including a definition of all population centres in the Region with a permanent population over 50.
4. Non-roads transport options were examined in light of the freight, tourism and community access transport demands identified under Steps 1, 2 and 3 above. This included existing or potential air and rail services, along with passenger bus services throughout the region.
5. A Demand Modelling Working Paper was prepared, summarising all information collected in Stage 1, for consideration and adoption by the RTS Committee.

2.5 Stage 1 Outcomes

The major deliverable from the first stage of developing the 2030 Regional Transport Plan was the “2030 Regional Transport Plan – Demand Modelling Working Paper”, which summarised all of the Stage 1 findings. The Demand Modelling Working Paper comprised an introduction and a total of seven sections (as listed below), along with 12 appendices containing relevant supporting information and 44 reference documents (supplied in PDF format on an accompanying CD).

The main content of the Demand Modelling Working Paper covered:

Section 2 (Review of State and Regional Development Plans) reviewed the strategic direction set by the state government for both South Australia as a whole and for the Region, including associated infrastructure planning. South Australia’s Strategic Plan 2011 (Reference 4) is relatively current, but the Strategic Infrastructure Plan for South Australia (SIPSA – Reference 5) and SIPSA Regional Overview (Reference 6) are out of date. An update was expected by the end of 2013 but has not yet been released.

Section 2 also reviewed the state’s current statutory planning strategy, plus individual development plans in existence for the eight councils which form the M&MLGA. References 7 to 19 support this section of the working paper. Some of these documents were reviewed in the working paper, with a summary of pertinent findings provided, particularly where the issues impacted upon regional transport planning requirements in the Region. However, all listed documents influence transport demand modelling and network planning considerations for the Region.

Section 3 (Review of Current Transport Plans) looked at recent transport planning studies covering the Region which have been undertaken by various federal, state and local government bodies. References 20 to 29 provide varying assessments of the expected current and future demand for transport within the Region, with a particular emphasis on freight movement, but with additional consideration of transport requirements impacting upon tourism and community access. Once again, some of these documents were summarised in the working paper, but all have an impact on regional transport planning.

Sections 2 and 3 collectively identified and in many instances quantified the expected future demand for transport infrastructure in the Region out to various years from 2020 to 2050.

The Integrated Transport and Land Use Plan (ITLUP) is a key state government initiated state wide transport planning document, a draft of which was released in October 2013 for public comment (Reference 45). While too late for consideration as part of the Demand Modelling Working Paper, the ITLUP is a very important document which is likely to shape future “high level” consideration of transport requirements for the Region. The impact on the Region of the

draft ITLUP is considered in Section 4 of this report. A copy of the draft ITLUP Murray and Mallee Region “Solutions and Actions” statement is included as Appendix B.

Section 4 (Regional Freight Routes) summarised freight demands, including the main source and destination of freight movements in the Region. A recommendation was made regarding quantifying the term “large volume of heavy freight vehicles”, so that measured or predicted heavy vehicle traffic volumes can be used to support applications for local roads to be considered a regional freight route.

Section 5 (Regional Tourism Routes) addressed tourism demands in the Region by examining various publications available from the South Australian Tourism Commission and other sources. Section 5 defined such demands in terms of economic benefit to the state, region and local community. It addressed strategic tourism issues through reference to the state and various regional tourism strategies. A methodology for defining regional tourism routes was also proposed.

Section 6 (Regional Community Access Routes) identified community access demands based upon current population, expected future growth in population under the current state strategic plan, consideration of demographic shifts (mainly the ageing population in South Australia) and availability of essential regional services covering education, health, finance (banking), recreation and emergency services. The second part of Section 6 proposed a methodology for defining regional community access routes, using a combination of community size and availability of essential services.

Section 7 (Non-Roads Transport Considerations) looked at state government public transport policy and its likely effect on transport planning in the Region. The potential for a regional logistics airport at Monarto and re-establishment of the Renmark regional airport for commuter use were discussed. Impact of the Adelaide to Melbourne railway line was also examined, along with the potential benefit of future commuter rail access through the hills if the Northlink rail/road bypass of Adelaide proceeds at some stage in the future.

Section 8 provided key recommendations with regard to the process for developing draft regional transport routes, along with refinement of those routes through the subsequent council consultation process.

Following a review of the first draft of the Demand Modelling Working Paper by the RTS Committee at its meeting on 30 August 2013, the Working Paper became a key input to the second and third stages of the project. A final release of the Demand Modelling Working Paper was subsequently adopted by the RTS Committee at its meeting on 1 November 2013.

2.6 Stage 2 Tasks

Stage 2 of the project involved development of regional transport routes for the region, covering regionally significant and locally important freight, tourism and community access routes. The tasks undertaken as part of Stage 2 are detailed in the Project Brief (refer Appendix A of Enclosure 1). In summary they involved:

1. Meetings were held with staff and, in some instances, elected members from each council to discuss, then formally identify, all local roads which the council considered to have regional significance under one or more of the freight, tourism and community access categories. In the case of freight and tourism categories, plus one road in the community access category, “locally important” roads were also identified. While these roads did not meet the agreed criteria for regional significance, they were nevertheless considered sufficiently important to the council for inclusion in the regional transport plan. As part of the discussion process, each council was encouraged to include representatives from appropriate special interest groups (local tourism board, local development board, community associations, major freight or tourism operators) either at the main meeting or via one or more preliminary meetings, to gain specific input in relation to potential regionally significant roads.

2. Following completion of the eight meetings with council staff, freight, tourism and community access regional route drawings were prepared to identify routes submitted by individual councils, for consideration and endorsement by the RTS Committee.
3. A meeting of the RTS Committee was held on 1 November 2013, during which RTS Committee members were guided through the process of considering, amending if needed, then preparing a recommendation in relation to the proposed freight, tourism and community access routes.
4. All councils provided further individual feedback in relation to the draft freight, tourism and community access drawings, which were subsequently amended and formally released as an approved set on 29 November 2013.
5. Subsequent to formal release of the drawings, two councils (the Rural City of Murray Bridge and Mid Murray Council) sought late changes to their regional routes, in line with council based transport planning initiatives for their respective council areas. This resulted in seven drawings (three regional, three council and one township) being amended and re-issued as Revision A.

2.7 Stage 2 Outcomes

The key deliverable prepared under Stage 2 was a set of approved Regional Transport Route Drawings (released as at 29 November 2013, with seven drawings subsequently re-released as Revision A dated 31 March 2014). These drawings now form the basis of the 2030 Regional Transport Plan. They are included in A4 format as Appendix A of this report, with A3 versions also available as Enclosure 2. In addition, MapInfo data sets are available if individual councils wish to incorporate the approved Regional Transport Routes into local transport planning documents.

2.8 Stage 3 Tasks

Stage 3 of the project involved preparation of this final report, including detailed discussion of all aspects of the project and recommendations regarding regional transport priorities.

The tasks undertaken as part of Stage 3 are shown in the Project Brief (refer Appendix A of Enclosure 1). In summary they were:

1. Consolidate all working papers into a final report.
2. Prepare a draft of the “2030 Regional Transport Plan – Final Report” for consultation.
3. Review any comments received on the draft report.
4. Release a final version of the “2030 Regional Transport Plan – Final Report”.

The October 2013 draft release for public comment of the key state government publication “The Integrated Transport and Land Use Plan”, known as ITLUP, necessitated an additional review of its likely influence over the M&MLGA 2030 Regional Transport Plan. Public comments received in relation to ITLUP are now being examined by the state government, with a final version of the document due for release in 2014. The draft ITLUP has been included as Reference 45.

2.9 Stage 3 Outcomes

This final report is the culmination of the 2030 Regional Transport Planning project. While released as a current summary of regional transport priorities for the next 20 years, it is recognised that the 2030 Regional Transport Plan is a “living” document which will need regular review and updating as subsequent regional planning and development initiatives influence transport priorities.

3.0 REVIEW OF STATE AND REGIONAL DEVELOPMENT PLANS

3.1 South Australia's Strategic Plan

South Australia's Strategic Plan (SASP) was originally launched by the State Government of South Australia in March 2004. The plan had six objectives, namely:

- Growing Prosperity
- Improving Wellbeing
- Attaining Sustainability
- Fostering Creativity and Innovation
- Building Communities
- Expanding Opportunity

The SASP was updated in 2007 and again in 2011 (Reference 4). It has been prepared as a basis for guiding all government actions and priorities. The latest version has objectives, visions, goals and targets for various priorities based on the three foundations of a sustainable society, namely Our Community, Our Prosperity and Our Environment.

Relevant to the 2030 Regional Transport Plan is the vision, goal and targets under Our Prosperity:

The Vision: South Australia plans and delivers the right infrastructure.

To ensure the success of our State well into the future, we need to plan infrastructure that is economically and socially efficient. This will provide maximum return on investment and best value and benefit for our communities.

The Goal: South Australia's transport network enables efficient movement by industry and the community.

The Target: Strategic Infrastructure.

Ensure the provision of key economic and social infrastructure accommodates population growth.

Reference to regional areas is provided in the following commentary:

"We value the contributions our regions make to our economic prosperity, home to agriculture, forestry and fishing industries as well as an expanding mining industry. These industries together contributed \$6 billion to our economy in 2009/10. We want our regional communities to thrive through sustained growth while reaping the economic benefits of their hard work."

South Australia's Strategic Plan is not a statutory document. The Plan's objectives and targets are taken into account in all state government decision making, driving greater discipline and focus across government. Associated with the SASP are specific "action plans" for various topics, which facilitate reaching the SASP targets. Of particular relevance to the 2030 Regional Transport Plan is the Strategic Infrastructure Plan for South Australia.

3.2 Strategic Infrastructure Plan for South Australia (SIPSA)

The current published version of the Strategic Infrastructure Plan for South Australia (SIPSA) was released in April 2005 and covers the period 2004/05 to 2014/15 (Reference 5). The state government has advised that release of an updated Strategic Infrastructure Plan for South Australia is "imminent". Although it may soon be superseded, relevance of the current SIPSA to the 2030 Regional Transport Plan is reflected in the following "Transport Strategic Priorities":

Road

- *Improve the State's competitiveness through efficient freight transport networks and improved international links.*
- *Minimise the impact of freight vehicle movement on the community and environment by appropriately locating and protecting freight routes.*
- *Concentrate resources on maintaining and improving existing assets rather than extending the network.*

Rail

- *Encourage the shift to rail transport for passenger and freight movements where justified by environmental, economic or social imperatives.*

Air

- *Provide for the orderly expansion of facilities at regional airports to meet growing visitor and freight activities.*

SIPSA also identifies a series of specific strategic level transport projects for implementation across the state, via a Regional Overview document (Reference 6). Those relevant to the Region are:

- *Enhance existing priority strategic freight routes throughout the state in order to minimise community impacts of road freight.*
- *Implement the strategic town bypass policy.*

The state government has lead responsibility for promoting, developing and evaluating these projects.

Murray and Mallee Region

The Strategic Infrastructure Plan for South Australia – Regional Overview Reference 5, Pages 26 to 37) provides specific information about infrastructure plans for the Region.

The following project information is provided under the headings of "Transport" and "Land":

Project: Transport	Priority	2005-2010	2011-2015
<i>Traffic capacity on the Sturt Highway</i> Upgrade the Sturt Highway to support export-related freight movements, including:			
• Constructing overtaking lanes and alignment improvements.	U/way	*	*
• Undertake safety improvements at key locations including Renmark, Berri and Monash.	U/way	*	
• Assessing alternatives to the Paringa Bridge crossing the River Murray.	2		*
<i>Condition of River Murray ferries</i>			
• Complete River Murray ferry refurbishment program.	U/way	*	
<i>Transport Infrastructure to support mining industry expansion</i>			
• Investigate the strategic need to upgrade transport infrastructure to support mineral sands mining.	2	*	

<i>Airport capacity</i>			
• Consider the general aviation potential of Murray Bridge..	3	*	

Project: Land	Priority	2005-2010	2011-2015
<i>Industrial precinct and intermodal facility at Tailem Bend</i>			
• Determine the feasibility of developing an industrial/intermodal precinct at Tailem Bend.	2	*	
<i>Demand for serviced industrial land in the Berri and Renmark areas</i>			
• Develop additional serviced industrial land.	2	*	*

Note that several of the above projects have been significantly progressed, while others have stalled or been abandoned. It is expected that an updated SIPSA, together with the final version of ITLUP (when released in 2014), will provide much greater clarity regarding the state government's priorities for transport and land use.

3.3 South Australian Planning Strategy

The Planning Strategy for South Australia (contained in various documents, but mainly References 7 and 9) is a statutory process required under Section 22 of the *Development Act 1993*, which presents the South Australian Government's strategic policy directions for the physical development of the state. It is a requirement of the Development Act that councils must seek to align the Development Plan for their area with the Planning Strategy relevant to their region when preparing Development Plan Amendments. In this way, broad directions outlined within the Planning Strategy are translated to local area Development Plans and can affect local and regional development outcomes.

3.4 Murray and Mallee Region Plan

The relevant volume of the Planning Strategy covering the Region is the Murray and Mallee Region Plan dated January 2011 (Reference 9). Transport related references, and particularly those relating to freight transport, are summarised under the following headings:

Overview

- *The plan confirms the priorities for the region, clarifies where they are most required and identifies other potential demands on infrastructure and services. The state government recognises the importance of integrating land use and infrastructure planning.*

Principle 5: Protect and Build on the Region's Strategic Infrastructure

- *Proximity to major freight transport networks and freight storage facilities are strengths of the Murray and Mallee Region. Strategic infrastructure such as roads, rail and high pressure gas pipelines are crucial elements in the value chain, providing comparative advantage to local agricultural, mining and manufacturing industries.*
Policies –
 - *Encourage industry clusters (including mining and primary production value-adding processing and storage activities) in strategic locations such as freight transport nodes to maximise transport efficiencies and support industry development.*
 - *Establish appropriate buffers to protect existing strategic infrastructure, as well as sites and corridors identified as potential locations for future infrastructure, from encroachment by uses that may compromise their operation or expansion.*

- Reinforce the capability of airports, aerodromes and airstrips to support economic and social development and the Royal Flying Doctor Service, and protect these facilities from incompatible development in surrounding areas by specifying Principles or Development Control for building heights and defining noise zones within which residential development should be avoided.
- Ensure land uses surrounding airports, aerodromes and airstrips are compatible with these facilities and do not detract from their operation.
- Protect the transport functionality of road and rail corridors through planning policy in Development Plans.
- Designate and protect strategic freight corridors as identified on Maps C1 and D2.

Principle 6: Retain and Strengthen the Economic Potential of Primary Production Land

- Retaining primary production land across the Murray and Mallee Region is a priority, especially as wine grape, grain and horticulture crops will continue to underpin the regional and state economies.
- Mining and minerals processing are important to the region, but must be undertaken in an environmentally sensitive way to minimise negative impacts on the environment, neighbouring businesses and the community.

Principle 7: Reinforce the Region as a Preferred Tourism Destination

- The Murray and Mallee Region contains some of the state's most valued natural and heritage assets, picturesque landscapes and rustic towns that are uniquely South Australian. The Region's clean, green and natural image enhances its appeal as a tourist destination.
- The main drawcards are the River Murray and the Coorong. River-based recreation is the most important contributor to tourism. The houseboat business in particular relies on the character and natural environment of the river for its survival.
- The Monarto Zoological Park is an internationally recognised conservation facility providing over 1000 hectares of flora and fauna sanctuary and open zoological park for the purposes of wildlife conservation and public education, tourism and recreational opportunities.

Policies –

- Protect, enhance and promote the assets that attract tourists and are of value to the community, including:
 - open space and walking and cycling trail networks, including potential trails along the River Murray and former rail corridors;
 - scenic tourist drives, particularly through the Riverland, the Coorong and the eastern hills to the mid-Murray; and
 - designated four-wheel drive trails, especially in the Mallee.
- Reinforce the desired roles of various towns and areas in the Murray and Mallee tourist experience, including:
 - Mannum as the visitor gateway to the River Murray; Meningie as the gateway to the Coorong; and Waikerie as the gateway to the Riverland;

- *Murray Bridge and Tailem Bend as important gateways to and tourism destinations for the Region;*
- *Barmera and Meningie as lakeside towns with unique character;*
- *Blanchetown, Swan Reach and Morgan as service towns for tourists along the southern River Murray;*
- *Lameroo, Pinnaroo and Tintinara as centres for nature-based and four wheel drive tourism; Pinnaroo is also a gateway to South Australia for interstate visitors;*
- *Renmark as the launching point for eco- and water-based tourism in the Chowilla Regional Reserve, as well as a gateway to South Australia for interstate visitors; and*
- *The Riverland as a wine, food and cultural heritage destination.*
- *Develop the foreshore areas in towns for community/public recreation to attract tourists and create an inviting link between towns and water bodies.*

3.5 Development Plans

Development Plans are the key statutory documents in the South Australian planning and development system. The *Development Act 1993* requires there to be a Development Plan for each part of the State in order to guide development and inform assessment of development applications. They are unlike the Strategic Plans referred to in Sections 3.1 and 3.2, or other regional development studies such as the Murraylands and Riverland Regional Roadmap 2013-2016 (Reference 10) or the Monarto South Intermodal and Land Use Study (Reference 11), as they are part of the statutory process and provide detailed criteria against which development applications will be assessed.

Each council within the Region has its own Development Plan. Each Development Plan contains zones, maps and explicit written rules in the form of policies which guide property owners and others as to what can be done in the future on any piece of land in the area covered by the Development Plan. The zone maps and the policies (in the form of objectives, desired character statements and principles of development control) provide the detailed criteria used in assessment of proposed development applications.

All Development Plans for councils in the Region have been converted to a Better Development Plan (BDP) format. The BDP mapping format contains a series of overlays for each zone map, including a specific transport overlay which shows primary and secondary arterial roads, as well as railways, and provides the opportunity to recognise significant local road issues like freight routes and bypass roads. The BDP format provides the opportunity to reinforce transport and access route issues in the future.

Apart from the identification of significant transport access routes, the Development Plans identify the location of designated land uses including residential, centre, commercial and industrial zones within township boundaries, and other uses outside the townships including specific industrial zones and primary industry or primary production areas. This information is important in determining where the major traffic generators are located, and how they are connected to the local and regional road system. A brief summary of each council's Development Plan follows, providing an overview of the key land use factors to consider in the 2030 Regional Transport Plan.

3.5.1 Berri Barmera Council

The latest version of the Berri Barmera Council Development Plan was released on 29 November 2012 (Reference 12). Its major relevance to the 2030 Regional Transport Plan is Overlay Map BeBa/1 – Transport, which highlights one Primary Arterial Road (Sturt Highway) and two Secondary Arterial Roads (Old Sturt Highway and Goyder Highway).

Berri and Barmera are the main towns within the area while other towns include Glossop, Monash, Cobdogla and Loveday. Small growth is expected in all of the townships.

The River Murray and Lake Bonney are both large tourist destinations for recreation, fishing, water sports and house boating.

There are industrial zones within both Berri and Barmera.

3.5.2 Coorong District Council

The latest release of the Coorong District Council Development Plan is dated 18 October 2012 (Reference 13). Its major relevance to the 2030 Regional Transport Plan is Overlay Map CooD/1 – Transport, which highlights two Primary Arterial Roads (Dukes Highway and Princes Highway) and two Secondary Arterial Roads (Mallee Highway and Meningie / Coonalpyn Road), as well as the Adelaide to Melbourne railway and major local roads.

The Development Plan discusses planning requirements within the region for various activities.

There are industrial zones located at Tailem Bend, Peake, Meningie, Coonalpyn and Tintinara catering for local businesses and utilities depots which are utilised by heavy vehicles.

3.5.3 District Council of Karoonda East Murray

The latest Development Plan for the District Council of Karoonda East is dated 25 October 2012 (Reference 14). Its major relevance to the 2030 Regional Transport Plan is Map KEM/1, which shows the arterial and local road network.

The Karoonda Highway runs across the council area with most of the major towns located on the highway, including Karoonda, Borrika, Sandalwood, Mindarie and Wanbi, with Galga the other minor township. The railway line generally runs alongside the Karoonda Highway.

The Billatt Conservation Park is located to the east of the council area while areas within the central part of the council area are used for sand mining. The Mindarie mineral sands mine is located in the north of the council area.

There is an industrial zone located at Karoonda.

3.5.4 District Council of Loxton Waikerie

The latest version of the District Council of Loxton Waikerie Development Plan is dated 25 July 2013 (Reference 15). Its major relevance to the 2030 Regional Transport Plan is Overlay Map LoWa/1 – Transport, which shows the primary and secondary arterial road network. More detail is provided in the individual zone map overlays.

The Development Plan recognises the major towns of Loxton and Waikerie with town centre, industrial and residential zoning. The majority of the council area is zoned primary production, the main primary industry products are sheep for wool and meat. The district also contains significant horticultural policy areas within the Primary Production Zone where predominantly grapes, citrus fruit and almonds are grown.

Industrial zones are located in both Waikerie and Loxton. The Loxton industrial zone is partially undeveloped but is designed to accommodate light industrial, commercial and business

activities including manufacturing, warehousing and distribution. There are two industrial zones in Waikerie, these areas are to cater for future industrial developments.

3.5.5 Mid Murray Council

The latest version of the Mid Murray Council Development Plan is dated 24 October 2013 (Reference 16). Its major relevance to the 2030 Regional Transport Plan is Map MiMu/1, which shows the arterial and local road network. More detail is provided in each individual zone map overlay.

The main township is Mannum, which is shown as a “Major Centre”, while Cambrai, Truro and Morgan are shown as “Country Townships” and Tungkillo, Palmer, Swan Reach, Blanchetown, Sedan, Keyneton, Cadell and Apamurra are shown as “Local Centres”. There is a slight conflict with other provisions in the Development Plan referring to Swan Reach as a “Country Township” and not a “Local Centre”. Overall however, the Development Plan defines a general hierarchy of the towns and settlements.

Many of the towns and settlements provide supporting roles for transport due to their strategic locations on major transport routes.

A recent change to Council's Development Plan through the Township Boundaries DPA, resulted in the re-zoning of a portion of land just outside the township of Mannum to the newly created “Transport Industry Zone”. This zone has been specifically set up along a designated “B Double” route to cater for transport specific forms of industry and infrastructure (including service infrastructure such as a service station, roadhouse or similar). The land is currently vacant, awaiting development.

In the Mallee area sheep, cereals, dairying and horticulture are the principal farming activities. There are industrial zones in Mannum, Morgan, Truro and Blanchetown.

3.5.6 The Rural City of Murray Bridge

The latest version of the Murray Bridge Council Development Plan is dated 20 December 2012 (Reference 17). Its major relevance to the 2030 Regional Transport Plan is Overlay Map MuBr/1 – Transport, which shows the location of primary and secondary arterial roads. More detail is provided in the individual map overlays.

The main land uses are intensive farming (piggeries and dairying). Two minor generators associated with these are located to the south of Murray Bridge, namely a milk processing plant and the piggeries. There is a large region designated as “River Murray Flood” zone. There are two major freight generators, namely the Murray Bridge Industrial Estate and the Monarto Logistics Centre. Other industrial centres include the Bulk Goods Industry and the Mypolonga Traders Packing Sheds. There is also the Boral Quarry located to the West of Murray Bridge and the Australian Salt Mine to the south.

3.5.7 District Council of Renmark Paringa

The latest release of the Renmark Paringa Council Development Plan is dated 21 February 2013 (Reference 18). Its major relevance to the 2030 Regional Transport Plan is Overlay Map RePa/1 – Transport, which highlights existing primary and secondary arterial roads, including the Sturt Highway.

The Development Plan zones the main towns as Renmark and Paringa, with a major goal of increasing the size of these towns over the next 30 years.

The River Murray is a major recreation and tourism attraction for this area.

Sheep grazing, dry land farming and horticulture are the major land uses. The River Murray provides water for extensive irrigation areas, which produce citrus and other fruits, wine grapes and vegetables, much of which is exported. The area is also home to a large rose garden.

3.5.8 Southern Mallee District Council

The latest release of the Southern Mallee District Council Development Plan is dated 25 October 2012 (Reference 19). Its major relevance to the 2030 Regional Transport Plan is Structure Plan Map SoMa/1 – Overlay 1, which highlights all arterial and local roads, as well as the Tailm Bend to Pinnaroo railway.

The Development Plan zones the main towns including Lamerloo and Pinnaroo, and the smaller settlements of Geranium, Parrakie and Parilla. The majority of the district is zoned Primary Industry and main land uses are cereal growing and wool production.

The Ngarkat Conservation Park is located in the southern part of the council area.

There are industrial zones located at Lamerloo and Pinnaroo catering for local businesses and utilities depots which are utilised by heavy vehicles.

4.0 REVIEW OF CURRENT TRANSPORT PLANS

4.1 General

This section of the report looks at recent transport planning studies covering the Region which have been undertaken by various federal, state and local government bodies. A summary of each is provided, with further detail available in the Demand Modelling Working Paper (Enclosure 1) or the relevant reference.

4.2 Murray and Mallee Regional Transport Reviews 2006 and 2010

The Murray and Mallee Regional Transport Review 2006 (Reference 1) by Parsons Brinckerhoff Australia, dated February 2007, reviewed transport priorities for the region. This was done by the use of a multi-criteria assessment scoring process and relevant supporting evidence.

The Murray and Mallee Regional Transport Review 2010 (Reference 2) by Parsons Brinckerhoff Australia, dated March 2011, also reviewed transport priorities for the region. Changes in the region relating to agriculture, horticulture and tourist activity occurred as a result of the drought and the financial climate, as well as an increase in residential development and the changing needs of transport. A total of 27 stakeholders were consulted to contribute to the review process.

The multi-criteria assessment scoring process developed in the 2006 review and used again in the 2010 review remains relevant for regional prioritisation of road upgrade proposals which have been submitted by individual councils for funding consideration PROVIDED THAT all proposals submitted have been identified as a regionally significant transport route within the 2030 Regional Transport Plan, under one or more of the freight, tourism or community access purpose categories. Section 9 of this report explains in more detail how the 2006 multi-criteria assessment scoring process integrates into the overall regional transport plan review and update methodology.

4.3 AusLink White Paper

The AusLink White Paper titled "Building our National Transport Future" was published by the Australian Government's Department of Transport and Regional Services in June 2004 (Reference 20). It set up the framework for the planning and funding of Australia's national roads and railways, taking a long term strategic approach for the future. It provided an integrated corridor approach to infrastructure planning. This approach focussed on meeting future freight and passenger needs in the best way, irrespective of the transport mode. Only projects of high national priority were considered. As a result, the Australian Government funded projects which would have the greatest effect on the nation's long term future, including projects to improve the safety of Australia's major transport links and to make it quicker and cheaper to transport freight around the country.

The following investments were made in the Melbourne to Adelaide corridor during the five year planning period of AusLink:

Dukes Highway: The Australian Government committed \$15 million for shoulder sealing and to complete pavement reconstruction east of Bordertown within South Australia.

Adelaide to Melbourne Railway: The Australian Rail Track Corporation planned on-going maintenance and minor works to increase rail reliability and capacity.

The AusLink regional strategic investment funding stream aimed to enhance the ability of regional industry and communities to compete in the national and global marketplace.

Funding was to be targeted to local transport links of regional significance that might:

- carry out a connecting function within the regional land transport network or the National Network;
- form an important part of the economic development strategies within a region, consistent with existing or development regional plans;
- provide access to export-related transport networks – via rail heads, higher order regional roads, freight depots, intermodal facilities, ports and major airports; and
- enhance access for regional communities to services and employment.

The AusLink White Paper encouraged strategic planning at the regional level. AusLink regional funding was therefore designed to encourage and reward collaborative and strategic planning approaches – especially those which enhance the connections between local, state and national networks and those which are responsive to improved freight logistics.

4.4 Regional North South Transport Corridor

The Regional North South Transport Corridor report, prepared in February 2006 by Limestone Ridge Project Management on behalf of the Murraylands Regional Development Board, the M&MLGA, the Mid North Regional Development Board and the Central Local Government Association (Reference 21), looked at a cross regional strategic freight transport route which would have national, state and regional significance. The report clearly defined the route and identified strategic impetus and transport demand for the proposed upgrade of the roads involved.

The report stated that upgrade of the roads proposed to form the Regional North South Transport Corridor would:

- Create a transport route of regional and state significance for not only South Australia, but also of national significance to support interstate freight access;
- Support a diverse cross section of industry needs and service a broad catchment area; and
- Link three major state and national freight corridors, namely the South East Freeway, the Sturt Highway and the Morgan to Burra Road.

The report went on to discuss the increase in freight that the region will have over the coming years and the response of both operators and users that indicated they would utilise the corridor. Furthermore, it discussed the support of local and state governments in increasing the significance of the roads that make up the corridor to ensure that they receive funding.

Finally, a set of recommendations were made to ensure that progress was made in upgrading roads in the corridor to an appropriate standard.

4.5 Melbourne-Adelaide Corridor Strategy

One of the key components of the AusLink White Paper process was the development of a strategy for each corridor of the AusLink National Network. The Melbourne – Adelaide Corridor Strategy is aimed at long term development of this important transport corridor. It was prepared in 2007 jointly by the Australian Government's Department of Transport and Regional Services, along with state government transport agencies in Victoria and South Australia (Reference 22). The strategy provided guidance to decision makers and planners on the direction for development of the corridor over the next 20 to 25 years.

At a glance, the Corridor Strategy provided the following information:

“Address congestion, safety and reliability on underperforming sections of the road links and improve rail’s performance and share of the freight market. The Melbourne-Adelaide Corridor provides a vital link in the freight flows between eastern and central Australia and serves various regions with a mix of urban and regional communities. The corridor links major agriculture (grain, timber, horticulture and livestock) production areas of western Victoria and the south-east of South Australia to Melbourne, Adelaide and the associated export market. The corridor’s role in moving freight between capital cities extends beyond the boundaries of South Australia and Victoria. Some of the freight carried originates in or is destined for Perth and (to a lesser extent) Sydney and Darwin. The total freight movements along the corridor, including those originating in or destined for Perth or Darwin, are expected to increase at a rate of 2.6 percent a year to 2025. Road is expected to continue to be the dominant mode of transport for intra-state passenger travel particularly for trips less than 400 kilometres, while inter-capital passenger movements are dominated by air.”

Short-term priorities included in the Melbourne-Adelaide Corridor Strategy which are relevant to the 2030 Regional Transport Plan centre around the following strategic issues:

- the safety of passenger and freight movements along the corridor;
- the condition of the ageing road and rail infrastructure, which affects safety and efficiency;
- planning for longer-term management of transport issues in growth areas between Murray Bridge and Adelaide; and
- improvements of the rail corridor to increase the capacity and competitiveness of rail.

In response, the Department of Planning, Transport and Infrastructure undertook an extensive study in 2009 to determine appropriate treatments to address the aims of the strategy. The approach chosen was to deliver a program of works to produce the most cost effective and widespread improvements to safety along the whole length of the Dukes Highway.

\$100 million was committed to improving the Adelaide to Melbourne corridor in South Australia under the Australian Government’s Nation Building Program (2008/9 to 2013/14). Funding for this program comprises \$80 million for Dukes Highway improvements from the Australian Government and \$20 million from the SA Government for improvements to the South Eastern Freeway and Princes Highway.

4.6 Northlink – Adelaide Rail/Road Bypass – Various Studies

The Northern Rail Bypass of Adelaide (now known as Northlink and incorporating a road freight corridor as well) was first proposed by Australian National in 1983. Further early references to the rail bypass occur in a 1999 Rail Links Report to the SA Parliament by the then Environment, Resources and Development Committee, in the 2001 Australian Rail Track Corporation (ARTC) Interstate Rail Network Audit and in a 2001 investigation by the Rail Cooperative Research Centre.

Most recently, the rail bypass was considered as part of a report titled “South Australian Rail Freight – A Bypass to Save the Heart of Adelaide” (Reference 23) commissioned by the Mitcham Community Rail Freight Task Force in 2007. This report identified significant operational and community impact problems with the existing rail line which travels through the Adelaide Hills before entering the metropolitan area in Mitcham Council’s area of responsibility. It then considered options for upgrading the existing alignment, as well as examining the considerable positive impacts of relocating major rail freight movements onto a new northern bypass of Adelaide (while acknowledging the considerable capital cost involved). The report concluded with a clear recommendation to consider a freight train bypass of Adelaide as the long term solution for improvement of rail freight movement between Melbourne, Adelaide and Perth/Darwin.

The Adelaide Rail Freight Movements Study was subsequently commissioned by the Australian Government Department of Infrastructure, Transport, Regional Development & Local Government to consider in more detail various options for improvement of rail freight movement through the Adelaide Hills and metropolitan Adelaide. In a Discussion Paper released in October 2009 (Reference 24) and Final Report released in June 2010 (Reference 25), project consultants GHD provided an analysis of current freight rail movements and forecast growth in such movements to and through Adelaide. They also provided an analysis of the capacity of the existing Adelaide Hills rail line to meet this demand, both now and in the future, as well as an analysis of the impact of the current alignment on community amenity. Finally the existing route, along with three alternative routes, were identified in the discussion paper for further analysis and, in the final report, examined in detail. Two of the alternative routes were variants of the Northern Bypass proposal previously examined in the 2007 report (Reference 22), though the linkage at the Adelaide end was changed from Mallala in the earlier proposal to Two Wells. The third alternative route was a Southern Bypass option.

Following comparison of expected capital cost for the various options with economic and community benefits, the final report of the Adelaide Rail Freight Movements Study concluded that, while all options considered were technically feasible, none were found to be economically justifiable at this point in time. Over a 30-year evaluation period (2009 to 2039), the report stated that the combination of modest social and environmental benefits and operational efficiency benefits would not be sufficient to outweigh the much higher capital costs that would be required to build alternative alignments or to upgrade the existing alignment. However, the report also acknowledged (but considered it outside the scope of the study) that state and federal governments need to consider the implication that substantial capital investments are required to deliver solutions sought by the wider community (i.e. not just those very directly affected) and that this includes so-called “nation building” projects. It further noted that very large projects may not always deliver positive net benefits, unless consideration is given to the network-wide impact of such investment.

The latest report in relation to the rail bypass of Adelaide, titled “Northlink – Getting SA on Track” was commissioned by the Northlink Reference Group and published in December 2010. Northlink Reference Group engaged Dr Marcus Spiller of SGS Economics and Planning to prepare a review of the benefit cost analysis approach used by GHD in the Adelaide Rail Freight Movements Study Final Report. Dr Spiller’s findings expressed doubt about the GHD approach, particularly in terms of the “rapid” cost benefit analysis’ concentration on freight movement efficiencies and relative absence of cross-sectoral considerations, including economic and social benefits for urban and rural communities. The Northlink report concluded that there were considerable benefits to the bypass proposal beyond the efficient movement of freight, and that further investigation of the rail bypass proposal was warranted.

4.7 Road Classification Guidelines in South Australia

Released in July 2008, the Road Classification Guidelines in SA (Reference 27) was prepared by the Local Roads Advisory Committee on behalf of the Local Government Association of South Australia and DPTI. It provides the most recent and most comprehensive set of definitions for the classification of roads throughout South Australia as “Arterial” or “Local”. It also provides a fundamental definition of “Key Towns” and “Important Centres” based upon “ABS Census of Population and Housing” data.

Relevant definitions contained within the Road Classification Guidelines which are most likely to influence M&MLGA regional transport planning are:

Key Town and Important Centre

Key Towns are designated as those with a population greater than or equal to 3000, while Important Centres are those with a population greater than or equal to 1000 persons, but less than 3000. Note that the terms Key Town and Important Centre have been used in the Road Classification Guidelines solely to determine the road hierarchy and network. The terms are

based on population only and do not necessarily reflect the general importance of towns in the state.

Using the above definitions, Page 7 of the Road Classification Guidelines lists Key Towns in the Region (from largest to smallest) as Murray Bridge, Renmark, Berri and Loxton. Important Centres are listed as Mannum, Barmera, Waikerie and Tailem Bend. An increase in population between the 2006 and 2011 census has resulted in Meningie also being included as an Important Centre.

Rural Arterial Road

Rural Arterial Roads provide a highly connective strategic network of roads carrying significant traffic volumes, including heavy vehicles, over long distances on a continuous basis (as distinct from seasonal traffic). Such roads include:

- Roads between states and their capital cities (e.g. Sturt Highway and Dukes Highway);
- Roads between broad geographic regions of the state and between Key Towns in these regions (e.g. Princes Highway, Mallee Highway and Karoonda Highway);
- Roads connecting Important Centres to Key Towns (e.g. Pinnaroo-Loxton Road and the Regional North South Transport Corridor);
- Roads connecting Important Centres to each other where such links in association with other arterial roads are of state-wide or major regional significance (e.g. Hunter Highway).

Rural Local Road

Rural Local Roads are of three kinds:

- Roads leading to Important Centres or other communities situated a short distance off the main bypassing arterial road;
- Roads that provide for local area movements including travel between two Important Centres (note that local area is not necessarily synonymous with council area); and
- Roads that are obviously local access roads leading to groups of farms or small settlements.

Urban Road

Urban Roads are defined as those inside the Adelaide metropolitan area. However, an exception to this is those roads located in some regional cities, or large country towns, which are considered to be of an urban nature. It is therefore proposed in the Road Classification Guidelines that roads within those towns outside of Adelaide with 10,000 people or more be treated as urban. For the Region, this would apply to Murray Bridge.

PART C

5.0 REGIONAL FREIGHT ROUTES

5.1 Freight Demands

Sources of freight movements in the Region comprise two fundamental types:

1. Individual properties throughout the Region. In this instance, freight movements are generally of low volume and spread across various roads in the network, dictated by the needs of individual businesses. In some cases, use of B-Doubles may be required. These are generally approved via issue of individual permits or, if required on a regular basis, through gazettal of a Commodity Freight Route under DPTI's Heavy Vehicle Access Framework and displayed using DPTI's online RAVnet map system.

The presence of B-Doubles may dictate that these "farm/industry gate to arterial road" freight routes qualify as locally important freight routes within an individual council's area of responsibility. However, the routes do not necessarily qualify as regionally significant unless the daily quantity of B-Double movements is high enough that the quantity of freight being moved brings substantial economic benefit to the region. This would be the case where freight movements from a large number of individual properties start to concentrate onto a common route.

2. Industrial and logistics zones in Key Towns and Important Centres. These zones generate significant economic activity which is of benefit to an individual council's area of responsibility and to the Region. In some cases, the centres are of importance to the state as a whole.
Various minor industrial zones exist in Important Centres throughout the Region. These are identified in the Development Plan applicable to each council (References 12 to 19). Local roads connecting minor industrial zones to a nearby arterial road will qualify as being of local importance, but to be considered of regional significance will require a sufficient number of freight movements to demonstrate economic benefit to the Region as a whole.

A summary of predicted freight generation demands, identified from each individual council's Development Plan, as well as from discussions with council representatives and the RDA Murraylands and Riverland, is provided in the following table:

Predicted Freight Generation Demands		
Freight Generator	Current/Predicted Capacity Commentary	Regional Significance
<i>Berri Barmera Council</i>		
Accolade Wines (old Sturt Highway, Glossop)	Winery crushing and processing facility, including packaging (crushed 202,500 tonnes in 2013)	Major Industry Centre
Berri Industrial Area	Some industry, room for development, proposed bulky goods	Minor Industry Centre
Barmera Industrial Area	Co-operative packing sheds, industry	Minor Industry Centre
Santos Ready Mix Concrete (Sturt Highway, Monash)	Concrete batching facility (approximately 48,000 tonnes per year)	Minor Industry Centre

Freight Generator	Current/Predicted Capacity Commentary	Regional Significance
<i>Berri Barmera Council (continued)</i>		
Other Individual Sites (x 7)	Various wineries, wine stores, transport centres and a quarry (each generating between 20,000 and 50,000 tonnes per annum)	Minor Industry Centres
Horticulture activities throughout the area		
<i>Coorong District Council</i>		
Viterra Taillem Bend	Grain silos and open area storage	Major Industry Centre
Racecourse Grain Store Taillem Bend (proposed)	Grain open area storage in former racecourse land	Major Industry Centre
Taillem Bend Industrial Areas (x 2)	Large underdeveloped industrial zoned areas	Minor Industry Centres
Motorsport Park Industrial Area (proposed)	Additional industrial zoned area around former vehicle test track	Minor Industry Centre
Meningie Industrial Area	Large industrial area	Minor Industry Centre
Viterra Coomandook	Grain silos	Minor Industry Centre
Viterra Coonalpyn	Grain silos and open area storage	Minor Industry Centre
Viterra Tintinara	Grain silos	Minor Industry Centre
Viterra Peake	Grain silos	Minor Industry Centre
Aerotech Aerodrome	Specialised aircraft manufacture	Minor Industry Centre
Grazing and Cropping, plus Piggery, Olives and Feedlots of varying intensities throughout the area		
<i>District Council of Karoonda East Murray</i>		
Mindarie Mineral Sands Mine	Exports 120,000 t/year	Major Industry Centre
Viterra Karoonda	Grain silos and open area storage	Major Industry Centre
Karoonda Industrial Zone	Largely undeveloped	Minor Industry Centre
Wheat in the Walker Flat area	43,000 t/year estimate	
Potatoes in the Bowhill area	30,000 t/year estimate	
<i>District Council of Loxton Waikerie</i>		
Nippys Waikerie	Generate approximately 50,000 t/year	Major Industry Centre
Crusta Waikerie, Lochert Bros and Others	Crusta generates the majority of freight that uses Zeigler Rd	Major Industry Centre

Freight Generator	Current/Predicted Capacity Commentary	Regional Significance
<i>District Council of Loxton Waikerie (continued)</i>		
Kingston Estate Winery	Large generator of wine	Major Industry Centre
Nippys Moorook	Major juice processing centre	Major Industry Centre
Viterra Loxton	Grain silos and open area storage	Major Industry Centre
Chicken Farms in the west (proposed)	Significant potential generator of freight	Major Industry Centre
Waikerie Industrial Area	Two undeveloped areas	Minor Industry Centre
Olo Olive Oil Processing	Large amount of freight	Minor Industry Centre
Loxton Industrial Area	Partially developed industrial area	Minor Industry Centre
Costi's Fruit Packing Loxton North	Large amount of freight along with Lewis Packing	Minor Industry Centre
TWG Winery Loxton North	Large amount of freight	Minor Industry Centre
Horticulture and Viticulture	Significant generator of freight along the length of the River Murray	
Grain	80% of dry land farming grain goes to the Port via the Sturt Highway, volumes in hundreds of thousands	
<i>Mid Murray Council</i>		
Viterra Apamurra	Grain silos and open area storage	Major Industry Centre
Oakville Potatoes	50,000 t/year of potatoes washed and packed	Major Industry Centre
Santrev Chicken Farms Blanchetown (proposed)	6 farms will be a significant generator of freight	Major Industry Centre
Tepko Enterprise Zone (proposed)	Industrial development centred around proposed gas fired power station	Major Industry Centre
Rivapak Onions	Large amount of freight	Minor Industry Centre
Tara Hills Pastoral	Large transport depot	Minor Industry Centre
Marne Valley Turf	Large amount of freight	Minor Industry Centre
Tungali Feedlot	Large amount of freight	Minor Industry Centre
Almonds at Swan Reach and other River Murray locations		
Vineyards and Fruit at Morgan		
<i>The Rural City of Murray Bridge</i>		
Monarto Intermodal and Logistics Centre	Of national significance, with major logistics companies present	Major Industry Centre

Freight Generator	Current/Predicted Capacity Commentary	Regional Significance
<i>The Rural City of Murray Bridge (continued)</i>		
Murray Bridge Industrial Area	Ridleys Murray Bridge are a major part, poor access	Major Industry Centre
Thomas Foods International	Recently took over T&R Pastoral 60-70 semi-trailers into site per day	Major Industry Centre
Big River Pork	Currently processing 12,000 pigs/week with capacity to process 20,000	Major Industry Centre
Boral Quarry		Minor Industry Centre
Adelaide Mushrooms	Transport 150 t/week of mushrooms	Minor Industry Centre
Bulk Goods Industry		Minor Industry Centre
Ridleys Stock Feed		Minor Industry Centre
Stay Crisp		Minor Industry Centre
Mypolonga Traders Packing Sheds		Minor Industry Centre
Brinkley Land Fill	Serves a major part of the Fleurieu Peninsula	Minor Industry Centre
Australian Salt		Minor Industry Centre
Milk Processing Plant near Tailem Bend		Minor Industry Centre
Monarto Air Freight Terminal (proposed)		Minor Industry Centre
Dairies, Piggeries and Chickens at various sites		
<i>District Council of Renmark Paringa</i>		
Renmark Industrial Area	Several industries already operating, with plans to consolidate other industries to that location	Major Industry Centre
Angove Family Winemakers	Winery crushing and processing facility, crushes 20,000 tonnes annually, total freight movements around 55,000 tonnes/annum	Major Industry Centre
Pickering Transport	Large transport depot	Minor Industry Centre
Todian Transport	Large transport depot	Minor Industry Centre
Paringa Industrial Area	Small area, largely undeveloped	Minor Industry Centre
Horticulture and Viticulture	Significant generator of freight along the length of the River Murray	
Almonds from Victoria	Growers along the River Murray in Victoria use Lindsay Point Road	

Freight Generator	Current/Predicted Capacity Commentary	Regional Significance
<i>Southern Mallee District Council</i>		
Viterra Pinnaroo	Grain silos and open area storage	Major Industry Centre
GrainFlow Pinnaroo	Grain open area storage	Major Industry Centre
Parilla Potatoes	In excess of 50,000 t/year of potatoes washed and packed	Major Industry Centre
Lameroo Industrial Area	Partly undeveloped industrial zone, contains DPTI depot and local service industries	Minor Industry Centre
Viterra Lameroo	Grain silos and open area storage	Minor Industry Centre
Intensive Horticulture, a Piggery and Grain activities throughout the area		

5.2 Definition of Regional Freight Routes

The most appropriate definition of a regional freight route remains that which is contained within the December 2001 Roads Infrastructure Database (RID) Project Report (Reference 3), namely that a "Freight" purpose *"Facilitates industry development by linking key industries to major transport routes and contributes to efficient movement of large volumes of heavy freight vehicles"*. Unfortunately, the term "large volumes of heavy freight vehicles" was never fully defined in the RID Project Report, nor in any of the subsequent strategic planning documents which have been released.

For the purpose of the 2030 Regional Transport Plan, it has been agreed that the following quantifiable definition of a "large volume of heavy freight vehicles" be applied:

- At least 10 B-Double movements per day (50 per week) on a two way basis (i.e. half may be empty or part full); or
- At least 20 semi-trailer movements per day (100 per week) on a two way basis (i.e. half may be empty or part full); or
- Any combination of the above where a B-Double counts as two semi-trailers.

Assuming a typical load of 40 tonnes for a B-Double and 20 tonnes for a semi-trailer, this equates to 200 tonnes per day (1000 tonnes per week or 50,000 tonnes per annum) of general freight movement on the route. This figure provides a quantifiable assessment of whether routes servicing an industry centre should be classified as regionally significant (i.e. over 50,000 tonnes per annum) or locally important (under 50,000 tonnes per annum). However, an exception to this measure is high value freight, where fast and reliable access to market and the value of the economic contribution to the region may justify such routes being classified as regionally significant, despite a much lower tonnage involved.

In addition to the freight routes which qualify as regionally significant under the above definition, the term "locally important freight route" has been introduced to reflect other freight routes which are considered of importance in each council's area. These routes have a quantifiable definition of carrying between 20,000 and 50,000 tonnes per annum of freight. However, locally important freight routes are not considered to be regionally significant, unless they separately qualify as a regionally significant tourism or community access route.

5.3 Capacity and Safety Issues

If considered in isolation to other road users, regional freight routes would be established as the shortest link between freight demand generators (i.e. all of the major and minor industry centres listed above) to arterial roads. However, use of the road network by commuters and tourists generates several different sets of road user requirements which must be catered for. The safety of all road users is affected by the capacity of individual roads to handle these differing requirements.

Where possible, separation of freight movements from commuter/tourist traffic achieves pronounced improvements in road safety for all users. The continued introduction of freight bypasses for Key Towns and Important Centres has therefore been given a very high priority by the state government, with implementation of its strategic town bypass policy being recognised as a strategic transport project within the Strategic Infrastructure Plan for South Australia (Reference 5).

5.4 Methodology for Creation of Regional Freight Routes

The process for developing regional freight routes was undertaken in four steps, namely:

1. All major industry centres were linked to the nearest suitable DPTI arterial road and/or national highway with a regionally significant freight route, if they were not already located on a DPTI route.
2. Additional local roads were designated as regionally significant freight routes whenever they were deemed to provide a key link between two DPTI arterial roads (or national highways) – town freight bypasses being notable examples in Murray Bridge, Mannum (proposed), Morgan and Loxton (proposed).
3. Minor industry centres were examined, with connection to a DPTI arterial road determined to be regionally significant if the volume of heavy vehicles and/or tonnage of freight moved on that route met the definition in Section 5.2 above. Note that, where any route associated with a minor industry centre failed to meet the definition for regional significance, they were designated as a locally important freight route.
4. Additional local roads were designated as locally important freight routes, based upon council knowledge of freight movements within the council area, backed up by road traffic volume/classification counts.

As a result of the above process, and using the definitions shown in Section 5.2, a variety of maps showing regionally significant and locally important freight routes in the Region have been prepared. These regional freight routes have then been presented in a regional overview, together with council wide maps for greater clarity and, where needed, detailed maps for key towns. All maps are included at A4 size in Appendix A of this report, along with a separate volume of A3 sized maps (as Enclosure 2).

6.0 REGIONAL TOURISM ROUTES

6.1 Tourism Demands

The South Australian Tourism Commission (SATC) has established a tourism brand known as “South Australia – A Brilliant Blend”. SATC advertises key tourism locations, which are consequently considered of state significance. They are part of the “Brilliant South Australia” booklet, available in hard copy from SATC offices but not downloadable from their web site. Key tourism locations are also promoted in the “South Australia Experiences” leaflets. For the Region, nationally significant tourism destinations include Monarto, the entire length of the River Murray from Renmark to Wellington, and the Coorong.

Any site listed in regional tourism brochures could be considered to have regional significance. However, practical considerations in terms of the likely number of visitors, particularly those coming via organised coach or mini bus tour, should be taken into account when determining which sites need to be serviced by a regional tourism route.

Market summaries for the Murraylands and Riverland regional tourism destinations, along with various other facts covering the profile of domestic visitors, attractions and events, tourism accommodation, and the profile of international visitors, is provided in regional tourism profiles published by the SATC in 2012 (Reference 32). This important information further assists in defining the regional significance of various tourism destinations.

One basis of comparing tourism demand for the Region is the estimated number of overnight visitors and their source (i.e. intrastate vs interstate vs international). For 2010-12, the regional tourism profiles provide the following information for average annual visits:

	<u>Intrastate</u>	<u>Interstate</u>	<u>International</u>
Murraylands			
Visits	138,000	49,000	6,000
Nights	344,000	171,000	80,000
Riverland			
Visits	206,000	60,000	6,000
Nights	625,000	179,000	157,000

The above table highlights the significance of the Murraylands and Riverland as tourist destinations, not only for interstate visitors (where the average stay is 3.5 nights for the Murraylands sub-region and 3.0 nights for the Riverland sub-region), but for international visitors (with an average stay of over 13 nights for the Murraylands sub-region and over 26 nights for the Riverland sub-region).

From information contained in the SATC publication “Regional Tourism Profiles for South Australia” (Reference 31), the combined Murraylands and Riverland visitor numbers (i.e. for the Region as a whole) rank third behind Adelaide and the Limestone Coast for interstate visitors and fourth behind Adelaide, Fleurieu Peninsula and Yorke Peninsula for intrastate visitors.

6.2 Regional Tourism Considerations

While there are quite a few publications which identify tourism priorities for the Region, there are very few available publications which specifically address the need for tourism transport infrastructure on a regional basis. However, an understanding of the following publications provides, at least in a broad sense, guidance for the determination of regional priorities in relation to tourism transport infrastructure:

- Murray River, Lakes & Coorong Tourism Strategy and Action Plan 2012-13 to 2015-16 Strategy and Actions Summary, Murraylands Tourism Partnership, June 2012 (Reference 33).
- RDA M&R Regional Tourism Strategies and Actions 2012-13 (Reference 34). The Riverland Destination Action Plan 2012-2015, SATC and Destination Riverland, 21 May 2012 (Reference 35).
- South Australia Tourism Plan 2009-2014, South Australia Tourism Commission, January 2009 (Reference 36).
- Local Government's Engagement in Tourism – Final Report, SA Tourism Commission and Local Government Association of SA, July 2006 (Reference 37).
- Murray River Lakes and Coorong Visitor Guide, southaustralia.com, 2013 (Reference 38).
- Riverland Visitor Guide, southaustralia.com, 2013 (Reference 39).
- Coorong Tourism and Economic Development Plan, Coorong District Council, 21 November 2011 (Reference 40).
- Loxton Waikerie Tourism Action Plan, Urban & Regional Planning Solutions, May 2007 (Reference 41).
- Melbourne Adelaide Touring Route, South Australia Tourism Commission, 2012 (Reference 42).

State tourism routes have recently been defined through their inclusion in the June 2013 DPTI publication titled “A Functional Hierarchy for SA’s Land Transport Network” (Reference 29).

6.3 Methodology for Creation of Regional Tourism Routes

Maps showing tourism destinations in the Region are included in Appendix A and Enclosure 2. These maps were established by undertaking a study of SATC promotional material in order to identify tourism destinations of state significance, along with regional tourism promotional material in order to identify tourism destinations of regional significance. Some councils provided significant input to this process, while for others their input has been limited.

The presence of a large number of holiday shack communities along the River Murray was considered a key component of tourism in the Region. Wherever concentrated holiday populations of at least 100 occur along the River Murray, these were identified as secondary tourism destinations.

Tourism information can also be based on scenic drives indicated in regional promotional material, as well as on maps maintained at a state level by DPTI.

In determining regional tourism routes, the difference between designated primary and secondary tourism routes was based on two key indicators.

Firstly, the size of vehicles that tourism operators use on the route and also the amount of advertising of the route can be used as an indicator of route importance. For instance, routes which cater for 40 seat buses are considered as primary tourism routes, while routes catering for 20 seat buses (e.g. coasters, etc) are considered secondary tourism routes.

Secondly, any route which links to a destination that is promoted as having state significance is considered a primary route. On the other hand, well advertised major attractions, which are usually only accessed by private vehicles, are considered secondary routes.

One point which was made via feedback from councils is that some locations do not have coach access or significant tourist numbers due to the currently inadequate access. If access was improved to these sites, tourist numbers and coach tours would consider utilising them more.

As well as the tourism destinations themselves, any township offering a visitor information centre highlighting attractions in the surrounding region (which includes all of the key towns and important centres, plus several smaller towns such as Pinnaroo, Lamerloo, Morgan and Swan Reach), was included on the regional tourism route maps. This acknowledges the fact that visitor information centres serve to enhance a tourist's experience in the area by providing information on additional attractions which might not otherwise have been known to the tourist, thereby encouraging them to stay longer.

The process for developing regional tourism routes was undertaken in five steps, namely:

1. The two national highways within the Region, namely Sturt Highway and Dukes Highway / South Eastern Freeway, along with two major state highways, namely Mallee Highway and Princes Highway, bring tourists from interstate. Along with several other state arterial roads, including Karoonda Highway and the Regional North-South Corridor, these roads were all shown as Primary Tourism Routes.
2. Any other DPTI arterial roads, as well as any local roads, that were identified in the "Future Directions Optimising Our Transport Corridors" document as part of the State Tourism Network were shown as Secondary Tourism Routes.
3. All primary tourism destinations were linked to the nearest suitable DPTI arterial road and/or national highway, if they were not already located on a DPTI route.
4. All secondary tourism destinations were checked against the above criteria regarding the type of vehicles used by commercial tourism operators to access the destination. Regular visits (e.g. at least daily in tourist season) by 40 seat buses dictated that the route warranted primary tourism route status. On the other hand, secondary tourism destinations visited regularly by smaller buses and cars were designated as secondary tourism routes.
5. Secondary tourism destinations which were not visited by a commercial bus operator on a regular (daily) basis, or where individual cars failed to bring in at least 50 visitors per day, were considered to only be of local importance, rather than being regionally significant. Similarly, local scenic routes that were not promoted in tourism publications outside of the region, were considered to have local importance, rather than regional significance.

As a result of the above five step process, a variety of maps showing regionally significant and locally important tourism routes in the Region have been prepared. These regional tourism routes have then been presented in a regional overview, together with council wide maps for greater clarity and, where needed, detailed maps for key towns. All maps are included at A4 size in Appendix A of this report, along with a separate volume of A3 sized maps (as Enclosure 2).

7.0 REGIONAL COMMUNITY ACCESS ROUTES

7.1 Community Access Demands

A process was undertaken to identify regionally significant community access roads by starting with identification of major demographics (i.e. population centres and available services).

Firstly, the location of town and community centres were determined using council information and other available maps. This information was then collated with the 2011 census data to establish which town and community centres had permanent populations exceeding 50. Where census data was not available for small towns (data is now packaged into regions rather than individual towns) Google Earth was used and the number of houses within the town was counted. This was then multiplied by 2.5 persons/house to give a town population.

Population data for Key Towns and for Important Centres, as per the definitions contained within the Road Classification Guidelines in SA (Reference 27), were then cross checked against data supplied by councils. Where a discrepancy existed, data from the Road Classification Guidelines has been used (refer Appendix D to Enclosure 1).

The community access network is based on town centres, which are clusters of households, rather than households scattered over a length of road. Once locations for these town centres were established, and population data received, the provision of essential services was assessed. Essential services are considered to cover the five areas of education, health, finance (banking), recreation and emergency services. The presence of an essential service was defined using various criteria. Education requires a school of any level. Health requires a doctor's surgery or hospital. Finance requires an operational bank or other lending institution (i.e. not an agency arrangement). Recreation requires use of a sporting facility and the associated existence of a sporting club not directly connected to a school. Emergency services requires at least one of Metropolitan Fire Service, Royal Flying Doctor Service, ambulance, police or SES to be based in the township/community. CFS depots were excluded as they are in all towns and also in numerous rural locations. However, they were considered in route planning.

7.2 Regional Community Access Considerations

By combining the presence of essential services with population data, town centre locations and the DPTI arterial road network, maps showing all community access requirements have been created (refer Appendix A or Enclosure 2). These maps show various colours for individual towns or community centres, based on the number of essential services available in that location, namely:

- Red – 0 services
- Orange – 1 Service
- Magenta – 2 services
- Yellow – 3 services
- Blue – 4 services
- Green – 5 services

Population is represented on the maps by the size of circles, with the ranges being:

- Small Community 50-100,
- Large Community 100-1000,
- Important Centre 1000-3000, and
- Key Town >3000.

Most townships and communities are on the arterial road network, thereby being provided with a reliable connection to other town centres with more or different services. A number of communities, though, are not on the arterial road network, notably Mypolonga, Woodlane, Caloote, Loveday, Lyrup, Raukkan and Nooameena.

Communities that are isolated from the arterial road network need to be provided with a regionally significant community access route to the nearest town centre or DPTI road.

For those towns or large communities already located on the arterial road network, it may be appropriate for councils to provide an extra regionally significant link to another service centre, where commuters would otherwise be driving a lot further out of their way to access the nearest essential services. Such alternative routes have not been considered for small communities, except in the event of high fire danger areas where an alternative emergency exit for community residents may be required.

In addition to the main methodology discussed above, a supplementary methodology for creation of a regionally significant community access route was also developed. This extra process involved determining the point at which local roads become a common use facility for at least 100 people, all coming from either individual farms or isolated communities each of less than 50 permanent population, and requiring access to their nearest town providing some or all of the five essential services. This process has resulted in some local roads which feed directly in to towns being of regional significance for part of their length.

7.3 Methodology for Creation of Regional Community Access Routes

The process for developing regional community access routes was undertaken in four steps, namely:

1. All communities in the Region with at least 50 permanent residents, along with essential services available in each of those communities, were identified using the methodology described in Section 7.2.
2. Small and Large Communities were linked via a single regionally significant community access route to either a DPTI arterial road or directly to a larger community providing the required essential service(s).
3. Small and Large Communities in high risk bushfire prone areas were provided, where possible, with a second regionally significant community access route in the opposite direction to the primary route.
4. Using ratepayer property information provided by individual councils, concentration points were determined for certain local roads servicing at least 100 permanent residents across diverse rural properties and very small communities. The section of local road from these concentration points to the nearest community with the relevant essential services (either directly or via a DPTI arterial road) was then defined as a regionally significant community access route.

As a result of the above four step process, and using the definitions provided in Section 7.2, a variety of maps showing regionally significant community access routes in the Region were prepared. These regional community access routes have once again been presented as a regional overview, together with council wide maps for greater clarity and, where needed, detailed maps for key towns. All maps are included at A4 size in Appendix A of this report, along with a separate volume of A3 sized maps (as Enclosure 2).

Gifford Hill, near Murray Bridge, has recently received approval to start development of the 800 hectare / 3,500 home estate. It will also contain a shopping precinct. This is likely to lead to the construction of an additional entrance/exit onto the Freeway at White Hill, which is expected to occur within the next 5 to 10 years.

8.0 NON-ROADS TRANSPORT CONSIDERATIONS

8.1 Review of Public Transport Policy

The methodology for this component of the project involved consideration of public transport issues when reviewing the various strategic plans, development plans and transport plans previously mentioned under Sections 3 and 4 of this report, along with an additional search of publicly available transport policy documents. The review is not intended to be a detailed analysis of all public transport services in the region, nor does it include consultation with significant stakeholders or communities.

8.1.1 Current Public Transport Policy – State Government

The Public Transport Division of DPTI oversees the operation of the regional passenger transport services:

Integrated Regional Transport Services – timetabled and flexible intra-region bus services, which are contracted and subsidised by the state government and with transport concessions provided. Link SA is the main provider for the Murraylands sub-region, while Premier Stateliner runs a twice daily service to Renmark covering all of the main Riverland towns.

Provincial City Bus Services – funded by the state government in six provincial cities in South Australia and managed by local operators. This service only applies for Murray Bridge.

Community Passenger Networks – transport information/brokerage services for transport disadvantaged people for accessibility to services within larger regional communities, jointly funded by DPTI and the Federal Department of Families and Communities' Home and Community Care Program. The Red Cross also provides a community passenger transport service.

Regional Taxi Services – 24 hour metered fares which can access the SA Transport Subsidy Scheme for people with disabilities.

A map showing all South Australian regional bus services is included as Appendix J to Enclosure 1. Further details can be found at <http://www.adelaidemetro.com.au/bussa/>.

The Parliament of South Australia's Environment, Resources and Development Committee had an inquiry into transport and released its findings in December 2009.

Key findings were:

Committee Recommendation 1

The Committee recommends that Government planning and funding for public transport in metropolitan Adelaide and regional South Australia reflect the urgent need to increase public transport's share of the passenger transport task.

Committee Recommendation 13

The Committee recommends that regional bus service fares be reviewed with a view to reducing the fares within country towns and between Adelaide's nearby country towns. Metropolitan and country public transport fares should be adjusted according to CPI on a regular basis and metro ticket boundaries be reviewed in light of the expanded urban area.

Committee Recommendation 14

The Committee recommends that public transport be considered to be an essential element contributing to the achievement of the community's social goals, such as

equity, social inclusion and the welfare of disadvantaged groups, through the network's geographical and temporal coverage and the quality of services provided.

8.1.2 Changing Community Attitudes to Travel

The DPTI *Travel Smart Program* may be of assistance to regional communities as a way of providing travel behavioural change. This program looks at the transport needs of individuals and local areas, then provides cultural change tools. The *Travel Smart Program* would need to be linked with other programs such as community public transport network brokerage.

8.1.3 Conclusions

1. The current policy for public transport in the State of South Australia is mainly focused on revitalisation for the higher demand centres in the Adelaide Metropolitan area and a transport brokerage brief on public transport demand growth in regions.
2. Regional public transport services into the future will more than likely need to be met by Regular Route Services and the integration of services.
3. Local public transport will tend to be provided within communities by Integrated Transport Services and Community Passenger Networks, supplemented where viable by Regional Taxi Services.
4. Travel Change behavioural programs could assist local people and communities in cultural change to travel demand (e.g. work from home, car pooling, teleworking, etc).

8.2 **Rail Transport Infrastructure**

Existing rail infrastructure within the Region and expected upgrades over the next ten years are highlighted in the various rail freight studies previously discussed in Sections 4.5 and 4.6. In summary:

8.2.1 Current Transport Policy – Australian Government

The Australian Government released its “National Infrastructure Priorities” in May 2009 where it identified that rail freight is becoming an increasingly significant factor in Australia's economic and environmental performance.

Infrastructure Australia supports significant investment in Australia's rail freight network and Infrastructure Australia considers that a new National Freight Strategy needs to be developed for our freight networks to improve planning, investment and decision making, as part of a complete Integrated National Transport Plan.

8.2.2 Rail Freight Considerations

Major rail freight movements are centred on the Adelaide to Melbourne line, which runs across the bottom of the Region, generally along the Dukes Highway alignment. This is a long haul freight line which has limited ability, and is generally not economically viable, to load/unload general freight along the rail route. However, grain silo storage and train loading facilities at various sites along the route, most notably Tailem Bend, are utilised for shipment of large quantities of grain by rail. Some of these road/rail intermodal facilities can be classified as a major industry centre (handling greater than 50,000 tonnes per annum of grain), while the remainder would be classified as a minor industry centre.

Additional rail freight operations along the Tailem Bend to Pinnaroo line and the Tailem Bend to Loxton line primarily support bulk grain movements from the principal Viterra storage sites at Lameroo, Pinnaroo, Karoonda and Loxton.

Many industrial developments within the Region are of regional significance, but they are highly unlikely to warrant any consideration of non-grain related road/rail intermodal transfer facilities within the timeframe of the 2030 Regional Transport Plan. The principal mode of freight transport will continue to be road based. The implication for the road network is that important local roads servicing industrial/logistics precincts will need to be capable of handling B-Double or larger freight movements.

The Northlink rail bypass remains a highly supported future infrastructure project. It would run from Murray Bridge and/or Monarto to Truro and then into northern Adelaide. Regional Development Australia strongly supports this project along with a significant majority of councils in the M&MLGA. A parallel freight road is also proposed to make interstate road freight movement more efficient by bypassing the Adelaide metropolitan area.

8.2.3 Rail Tourism Considerations

Tourism considerations are generally limited to the “Overland” train service which runs from Adelaide to Melbourne on Monday, Wednesday and Saturday with return services operating Tuesday and Friday. The only local stop is at Murray Bridge on an “if requested” basis.

There are no plans for expansion of tourist rail facilities in the Region.

8.2.4 Commuter Considerations

Use of rail for commuter services is impractical due to the small population catchment with local and regional bus services providing limited serviceability for this particular user group. Practically, private vehicles will be the predominant commuter transport mode in the immediate and medium term.

8.3 **Sea Transport Infrastructure**

Sea transport facilities in the Region are non-existent as it is located inland.

8.4 **Air Transport Infrastructure**

Air Freight Considerations: There is an area zoned as an airport at Monarto in the Rural City of Murray Bridge. It has been flagged initially as a potential air freight terminal serving the national logistics centre at Monarto, but may also become an “Outer Adelaide Airport” at some stage in the medium to long term (but not likely in the 20 year timeframe of the 2030 Regional Transport Plan). The site has therefore been shown on the regional freight map, but not on the regional community access map.

Very little export air freight is generated from other regional airports to Adelaide because the cargo capacity of aircraft operating regional air services is very limited and few products are of high enough value to sustain the air freight cost irrespective of back loading issues. None of the regional airports in South Australia can accommodate freight flights to interstate freight consolidation points, other than the potential future site at Monarto.

Other Aerodromes and Airstrips: These exist at a number of major centres around the Region, including Murray Bridge, Waikerie, Loxton and Renmark. All are primarily available for use by RFDS, private aircraft and charter flights. Likely future passenger numbers are insufficient to justify major upgrades to these sites, except at Renmark where the council has prepared a number of submissions for re-establishing Renmark Airport as a viable destination for regional passenger services and potential “fly-in fly-out” charter services. Use of airport facilities on a regular basis by the RFDS, such as occurs at Waikerie, Loxton and Renmark, is considered regionally significant due to the nature of the medical emergencies that necessitate RFDS transport. Use of aerodrome and airstrip facilities on a less frequent basis by the RFDS would not justify regional significance, with such facilities maintained on a suitable fit for purpose basis.

8.5 Ferries

The River Murray presents a major barrier to road transport within and through the Region. In the north, there are bridges at Renmark, Kingston-on-Murray and Blanchetown serving the Sturt Highway, with an additional bridge at Berri providing a key connection to Loxton. In the south, Swanport Bridge serves the Dukes Highway / Princes Highway / South East Freeway network, while the original road bridge at Murray Bridge is now a local connection to the town CBD (and an emergency backup for Swanport Bridge).

The Region's road network is therefore heavily reliant upon ferries, operated by DPTI, to enable effective movement of freight, tourists and local commuters throughout all other areas within the Region. From Wellington in the south to Lyrup in the Riverland, these ferries are critical road infrastructure. Even though the continued operation and effective maintenance/renewal of the ferries is a DPTI responsibility, they form an essential component of the 2030 Regional Transport Plan.

8.6 Bicycles

Provision of bicycle facilities for commuters and tourists is becoming of increasing importance for provincial cities and regional towns. While not directly considered in this report as part of the regional freight, tourism or community access transport networks, the presence of cycle routes has a major impact on the fit-for-purpose standard applicable to regional road infrastructure. In particular, extra road width for on-road bicycle lanes and appropriate road crossing points for off-road bicycle paths are important considerations in built up areas of regional towns, while use of suitable lane widths and sealed shoulders are very important if a rural road is declared as a bicycle route.

PART D

9.0 REVIEW AND UPDATE OF THE REGIONAL TRANSPORT PLAN

9.1 Background

The M&MLGA released its original Regional Transport Strategy in 2002, which included development of a transport infrastructure multi-criteria assessment database. Three subsequent updates have occurred, namely 2004, 2006 (Reference 1) and 2010 (Reference 2). Although each of these reviews have refined the assessment process and then considered a new set of regional road submissions, there has been no review of the fundamental assumptions and associated content of the original report.

Invariably, regional development priorities change over time, thereby changing the freight, tourism and community access requirements of the regional as a whole and of individual councils. This leads to roads being presented by individual councils as being of regional significance without neighbouring councils having fully considered, nor supported, the change in priorities. There is anecdotal evidence of this having occurred in recent years during annual consideration of Special Local Roads Program (SLRP) funding applications.

While not specifically requested as part of the original brief, inherent within the development of the 2030 Regional Transport Plan is the need to define a methodology for review and update of the underlying transport strategy and the associated regional route maps that form the basis of the 2030 Regional Transport Plan. This ensures that the 2030 Regional Transport Plan is a “living” document in which the M&MLGA is able to incrementally reflect changing regional needs by periodic updates to the plan during its expected 10 to 15 year life.

The following methodology for periodic review and update of the 2030 Regional Transport Plan, as well as activities associated with regional prioritisation of annual SLRP funding applications, is therefore proposed. It is based upon a similar successful methodology introduced by the Southern & Hills Local Government Association and the South East Local Government Association as part of their respective regional transport planning processes.

9.2 Overview of Process

The flowchart shown on the next page describes the review and update methodology as a six step process.

Step 1 addresses the need to periodically review all regional route plans developed as part of the 2030 Regional Transport Plan (refer to Appendix A or Enclosure 2 for the current plans). Changes to regional routes will be driven by changes to economic and social needs within the Region.

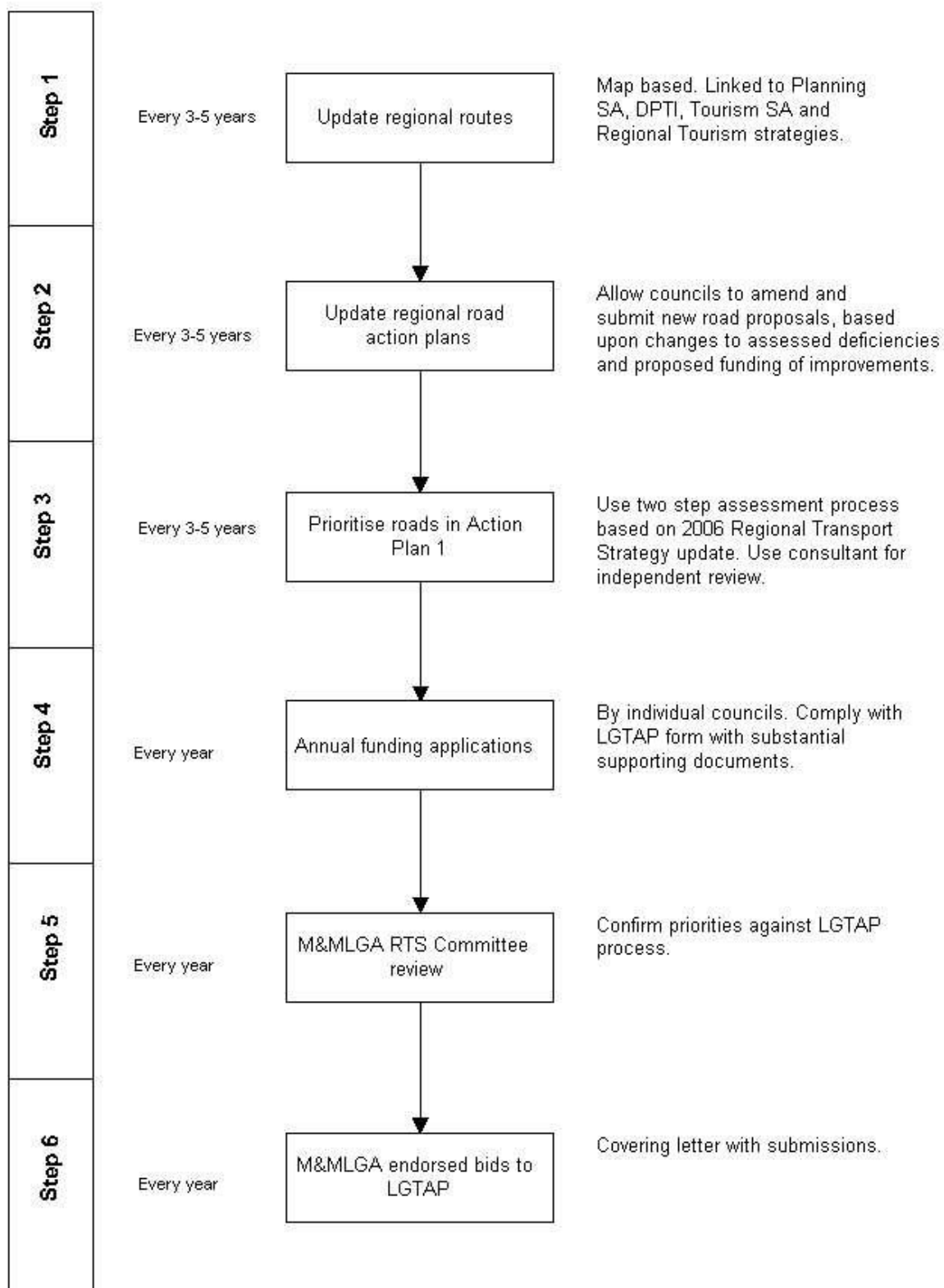
Step 2 allows councils to update the regional road action plans, which identify all regional freight, tourism and community access routes that are not fit for purpose, then establish short, medium and long term upgrade priorities (refer to Section 10 of this report for further details).

Step 3 allows the RTS Committee, with input from a consultant as independent reviewer if desired, to prioritise all roads submitted under Action Plan 1 (i.e. those showing significant deficiencies which councils have included as a priority under their individual capital works programs (see Section 10). For consistency with previous assessments, the prioritisation process should continue to use the multi-criteria assessment methodology adopted for the 2006 RTS update.

The above three steps should be conducted every three to five years.

Steps 4 to 6 describe the annual grant funds application process, which if applied as described, should maximise the potential for M&MLGA road projects to receive funding under the SLRP and from other sources.

2030 REGIONAL TRANSPORT PLAN METHODOLOGY FOR REVIEW AND UPDATE



9.3 Road Proposal Assessment

The annual road proposal assessment component of the 2030 Regional Transport Plan review and update methodology, which is shown as Step 5 in the flowchart on the previous page, should be closely aligned with recommendations contained within the Roads Infrastructure Database (RID) Project Report released in 2001 (Reference 3). The RID Project guidelines are used by the Local Government Transport Advisory Panel (LGTAP) as part of its annual assessment process for grant funding under the SLRP. Strong alignment between the M&MLGA and LGTAP assessment processes maximises the potential for M&MLGA applications to receive SLRP funding support.

The RID Project methodology is fully described in Reference 3. It is a single stage methodology which evaluates road proposals against six categories, namely Secondary Purpose, Regional Significance, as well as Economic, Access, Safety and Environmental Factors. Since publishing of the project report in 2001, all annual Special Local Roads Program and Regional Roads to Recovery funding applications from throughout the state submitted to the Local Roads Advisory Committee (LRAC), now the Local Government Transport Advisory Panel (LGTAP), are required to be in a format that facilitates assessment using the RID Project methodology.

The key to successful application of this methodology is threefold:

- a. Selecting road proposals which have been clearly identified in the 2030 Regional Transport Plan as a regionally significant freight, tourism and/or community access route, to ensure that the road proposal is properly recognised as having regional and/or state significance and (preferably) having more than one purpose.
- b. Substantiating claimed benefits under the economic, access, safety and environmental categories with objective evidence. This might include supporting freight movement studies for the economic benefits section, tourism or public transport operator letters of support for the access benefits section, and road safety audit reports for the safety benefits section.
- c. Once weighted benefit assessments are complete, splitting priorities for roads which have a primary purpose of freight, tourism or community access, so that the priority of tourism or community access roads for funding is independently compared with other tourism or community access roads respectively, not with freight roads.

10.0 REGIONAL ROAD ACTION PLANS

10.1 Background

Development of a methodology for creation of short, medium and long term regional road action plans in support of the agreed 2030 Regional Transport Plan was included as a requirement of the original project brief.

10.2 Methodology

The methodology for developing regional road action plans is based upon the four fit-for-purpose categories listed in Section 4 of the SLRP Standard Funding Application Form, namely:

- Speed Environment
- Dimensions
- Geometry
- Strength/Durability

Each regional route (or section of route where a significant change in road purpose or road standard occurs) is broadly assessed for compliance with its fit-for-purpose standard, based upon the road's purpose(s). Against the above four categories (i.e. not broken down any further) an assessment of "Compliant", "Minor Deficiency" or "Major Deficiency" is noted. A "Minor Deficiency" is defined as failing to meet the fit-for-purpose standard, but not in such a way as to affect the functional performance of the road or its inherent safety for the road user or its economic value to council and the community. A "Major Deficiency" is defined as failing to meet the fit-for-purpose standard to such a degree that the road is unable to safely and/or economically perform its purpose(s), requiring constant intervention by the responsible council using a suitable risk mitigation strategy.

Once the above assessment is complete, each regional route (or section of route) is listed on one of the following three action plans, or remains on a fourth list of roads with two parts, namely either "assessed as fit-for-purpose" or "not yet assessed".

10.3 Action Plan 1 – Immediate Priority (0 to 5 Years)

Roads on this list are regional routes exhibiting one or more major deficiencies in fit-for-purpose standard, the upgrade of which councils have included in their five year capital works programs. Initial budget allocations for these proposed upgrades are included in the action plan.

The starting point for Action Plan 1 is any outstanding road upgrade proposals which were assessed and prioritised under the 2010 RTS Review (Reference 2), provided that the road remains classified as a regionally significant route under the 2030 Regional Transport Plan.

10.4 Action Plan 2 – Medium Term Priority (6 to 10 Years)

Roads on this list are regional routes exhibiting at least one major deficiency in fit-for-purpose standard, the upgrade of which councils have not been able to include in their five year capital works programs, but for which an on-going risk mitigation strategy is in place for addressing any major deficiency.

10.5 Action Plan 3 – Long Term Priority (11 Years and Beyond)

Roads on this list are regional routes exhibiting no major deficiency, but one or more minor deficiencies in fit-for-purpose standard, the upgrade of which councils acknowledge is unlikely to occur in the next 10 years unless circumstances change significantly (e.g. road purpose, traffic volumes, further deterioration in standard, available funding).

10.6 Regional Roads Considered Fit-for-Purpose or Not Yet Assessed

All remaining regional freight, tourism and community access roads, as identified in the 2030 Regional Transport Plan, which currently meet all fit-for-purpose standards (i.e. exhibit no major or minor deficiency), or have not yet been assessed for deficiencies, are part of this list.

10.7 Sample Output

A sample spreadsheet, completed by each council for all of the regionally significant routes shown on the 2030 Regional Transport Plan for their area, is as follows:

Road / Segment	Speed Environment	Dimensions	Geometry	Strength / Durability	Action Plan	Cost (\$m) for Action Plan 1 Only
ABC Road	Minor	Minor	Compliant	Compliant	3	
EFG Road	Compliant	Minor	Compliant	Major	2	
HIJ Road	Compliant	Minor	Major	Major	1	1.5
KLM Road	Compliant	Compliant	Compliant	Compliant		

PART E

11.0 CONCLUSIONS AND RECOMMENDATIONS

11.1 Regional Transport Goals

In developing a regional transport strategy for the Murray and Mallee Region, the following six regional transport goals were formulated. These goals were the subject of discussion and refinement at the RTS Committee meeting held on 30 August 2013, and were subsequently adopted by the RTS Committee at its following meeting on 1 November 2013.

Goal 1 – Economic Development

- A transport system that supports economic, industry and trade development across the Murray and Mallee Region.

Goal 2 – Access

- An equitable and accessible transport network that allows for consistent and reliable travel, with the capacity to use roads for their intended purpose.

Goal 3 – Road Safety

- A safe transport network where the severity and risk of accidents is minimised, and where speed limits are applied to fit community need not road standard.

Goal 4 – Tourism

- Promote and assist regional tourism, by improving road access to tourist sites and developing a network of well signed tourist routes.

Goal 5 – Public Transport

- Continued development of a public transport system commensurate with the needs of the Murray and Mallee Region, including subsidisation of regional bus services on an equitable basis to metropolitan bus services.

Goal 6 – Environment

- A transport network that minimises adverse impacts on the environment and communities.

Consistent with the above goals, the following objectives have underpinned the process of developing the 2030 Regional Transport Plan:

- Establish consistent regional road transport links within the Murray and Mallee Region which are of an appropriate “fit for purpose” standard.
- Develop a network of regional freight routes for heavy vehicles which complement the state government managed arterial road system by linking current and future significant sources of freight to their planned destinations.
- Reduce the impact of heavy vehicle movements through key centres, using township bypasses or by adopting appropriate traffic management within townships where a bypass is not feasible.
- Reduce the number of commercial vehicles on the road network by facilitating the safe operation of higher productivity vehicles.

- Ensure intermodal facilities, such as grain storage and handling sites, can operate in a safe and efficient manner.
- Reduce potential conflict between freight, tourism and community access users of the road network, particularly at intersections.
- Promote and assist regional tourism, by improving road access to tourist sites and developing a network of well signed tourist routes.
- Maintain and, as needed, upgrade existing ferry operations across the River Murray to ensure they remain an essential component of the regional tourism and community access networks.
- Ensure that all communities in the Murray and Mallee Region have safe and reliable access to essential community services such as health, education, financial services, recreation facilities and emergency services.
- Upgrade regional airports where economically feasible, particularly Monarto as an important freight facility and Renmark as an important community access facility, but also other aerodromes and airstrips for use by essential services such as RFDS and for fire-fighting, along with commercial applications including banking and high value freight.
- Improve public transport facilities within the Murray and Mallee Region by:
 - expanding the subsidised Provincial City Bus Service to include key towns such as Renmark, Berri and Loxton;
 - ensuring that subsidies for Integrated Regional Transport Services are more equitable in relation to metropolitan public transport subsidies; and
 - making better use of school bus infrastructure for other services during the day.
- Encourage commuter cycling within key towns and important centres, as well as tourist cycling for selected routes, particularly along the River Murray.

11.2 Roads of Regional Significance – Guiding Principles

Six key recommendations were included in the 2030 Regional Transport Plan Demand Modelling Working Paper. These recommendations defined the principles for development of regional transport routes in the Murray and Mallee Region. They were discussed at the RTS Committee meeting held on 30 August 2013, and were subsequently adopted by the RTS Committee at its following meeting on 1 November 2013.

1. Regionally significant freight routes have initially been developed by connecting major industry centres with the state freight routes identified in the DPTI publication “A Functional Hierarchy for SA’s Land Transport Network”, while confirming that such routes are appropriately gazetted and shown in DPTI’s online RAVnet mapping system.
2. Councils have been able to nominate additional local roads as “regionally significant” or “locally important” freight routes based upon connection to an identified minor industry centre or as part of a broader rural region generating freight, provided that the number of B-Double or semi-trailer movements (and therefore total annual tonnage) complies with the respective definitions contained in Section 5.2.
3. Regionally significant tourism routes have initially been developed by mirroring the major tourist routes promoted in state and regional tourism publications, as confirmed in the DPTI publication “A Functional Hierarchy for SA’s Land Transport Network”. Consideration should also be given to any route used by a 40 seat tourist bus.

4. Councils have been able to nominate additional local roads as regional tourism routes using locally generated information to show that a significant (i.e. 100 plus) number of visitors see the site every day or that the route is the main access to a River Murray holiday shack community of at least 100 people. Designated scenic drives indicated in regional promotional material have also been included under this category.
5. Regional community access routes have initially been developed based upon 2011 census population data which identified all Key Towns (3000+), Important Centres (1000 to 3000) and Large Communities (100 to 1000), combined with access to the five essential services of education, health, finance (banking), recreation and emergency services.
6. Councils have been able to nominate additional local roads as regional community access routes either because a Small Community (50 to 100) is particularly isolated, or because a section of road leading to a major service centre supports a population of at least 100 dispersed over various farms and micro communities which concentrate road movement as they near the service centre.

11.3 Recommendations

The following six recommendations were endorsed by the M&MLGA RTS Committee at its meeting on 21 February 2014 and will be presented for formal adoption at the General Meeting of the M&MLGA to be held on 4 April 2014:

1. Regional transport goals developed as part of the 2030 Regional Transport Plan, as listed in Section 11.1 of this report, be adopted as the Regional Transport Goals for the 2030 Regional Transport Plan.
2. Regional freight routes, as shown on the regional overview, council wide maps and selected township detail maps in Appendix A and Enclosure 2, and regional tourism routes, as shown on the regional overview, council wide maps and selected township detail maps in Appendix A and Enclosure 2, and regional community access routes, as shown on the regional overview, council wide maps and selected township detail maps in Appendix A and Enclosure 2, all along with the underpinning definitions and methodology used to create the routes (as described in Sections 5, 6 and 7 respectively of this report) be adopted as part of the 2030 Regional Transport Plan.
3. Non-roads regional transport considerations, as presented in Section 8 of this report, be adopted as a basis for further investigation and development of specific initiatives for improving public transport, rail freight and air transport infrastructure where economically viable to do so, while also recognising the continued role of the River Murray ferries as an essential part of the regional transport network.
4. The methodology for review and update of the 2030 Regional Transport Plan, along with preparation and submission of annual Special Local Roads Program or other funding applications, as summarised by the flowchart shown in Section 9.2 of this report, be adopted as a key element to ensure that the 2030 Regional Transport Plan remains current and relevant to the region's transport planning needs.
5. Regional road action plans, highlighting immediate, medium term and long term requirements for improvement of all regional freight, tourism and community access routes identified in the 2030 Regional Transport Plan, be developed in accordance with the guidelines and sample spreadsheet shown in Section 10 of this report, with completion by mid 2014.
6. The first scheduled strategic review of the regional freight, tourism and community access routes identified in the 2030 Regional Transport Plan be set down for mid 2017 (i.e. three years after release of the final report).

A further recommendation was discussed at the M&MLGA RTS Committee meeting held on 21 February 2014 and will be presented for formal adoption at the General Meeting of the M&MLGA to be held on 4 April 2014:

7. In consideration of the content, recommendations and updated information contained in the 2030 Regional Transport Plan, coupled with the number of roads either completed or reaching end stage construction, all roads listed in Action Plan 1 (once created under Recommendation 5) be formally reviewed using the 2006 RTS two step assessment process, in order to create a new prioritised list of roads for consideration under the annual SLRP funding application process.

Appendix A

2030 Regional Transport Plan – Regional
Routes (as at 31 March 2014), A4 Size

Appendix B

Draft ITLUP Murray and Mallee Region
“Solutions and Actions” Statement

Murray and Mallee Region

Major regional centre: Murray Bridge

With a population currently approaching 68,900 people, the Murray and Mallee region is expected to grow at a rate of 0.4 per cent per annum to around 75,230 people by 2036.

While the Murray River remains the focus of the region's economy, the area has undergone significant economic restructuring in recent years as a result of prolonged drought conditions between 2006 and 2010. Key economic activities are based on primary production and include horticulture, viticulture, dairying, intensive livestock production and associated processing activities. The river also provides a strong focus for tourism.

With three major interstate highways passing through this region, there are significant opportunities to improve the efficiency of freight movement to key port and airport facilities in Adelaide and markets in Victoria and New South Wales. Upgrades to the Sturt, Mallee, Princes and Old Sturt highways as well as key access roads across the region will be progressively undertaken to make the most of these economic opportunities, providing the impetus for increased development at key centres along these routes. These safety and capacity improvements will also support increased tourist and passenger movements to destinations across the region.

Regional passenger transport services will be improved through better provision of information about services and the State Government will work closely with local councils to facilitate a review of strategically located regional passenger transport services.

The State Government will also work with local councils to develop cycling and walking frameworks to enhance access to local employment, shops and services in townships.

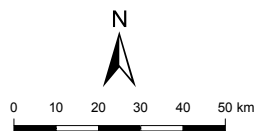
Implementation timeframe	Short	Medium	Long
Public transport – Area-wide solutions			
• Development of a Regional Passenger Transport Plan to address regional accessibility requirements			
• Better information for regional passengers			
• Continued support for regional passenger bus services e.g Murray Bridge Provincial City Bus Services and integrated passenger services			
Roads			
1. Sturt Highway – road widening, shoulder sealing, overtaking lanes, delineation, capacity improvements and bridge and intersections upgrade, and potential further capacity improvements including duplication of sections in the longer term			
2. Sturt Highway – investigate need for potential future arterial road bypass of Renmark			
3. Sturt Highway – arterial road bypass of Truro			
4. Dukes Highway – capacity improvements including duplication, Tailern Bend to Keith			
5. Provide five new vehicle ferries to support ongoing ferry crossing operations along the Murray River			
6. Mallee Highway – road widening, shoulder sealing and rest areas			
7. Princes Highway – road widening and/or shoulder sealing			
8. Loxton to Pinnaroo Road – road widening and/or shoulder sealing			
9. Pinnaroo to Bordertown Road – road widening and/or shoulder sealing			
10. Adelaide Hills freight route – Murray Bridge through Cambrai to Sedan (and to the Sturt Highway) – road widening and shoulder sealing			
11. Paringa bridge replacement			
12. Swanport bridge – investigate duplication			
Area-wide solutions			
• Road widening and shoulder sealing targeted at major freight and traffic routes			
• Increase maintenance to improve and sustain the performance of the transport network and make better use of our transport assets			
• Continue to implement the Road Safety Strategy and address road safety blackspot and higher risk locations			
Cycling and walking – Area-wide solutions			
• State Bicycle Fund – work with local councils to develop a regional cycling and walking strategy			
Ports, rail freight and airports			
13. Investigate freight rail / logistics improvements to support the grain task			
14. Investigate potential upgrade requirements on Adelaide-Melbourne rail line to facilitate double stacking			
Area-wide solutions			
• Work with local councils to identify upgrades of strategically important local aerodromes including Waikerie, Loxton and Renmark			
Local Government			
• Work with local councils to complete local transport strategies to complement land use directions of local development plans, with a focus on freight movements and accessible townships:			
• Road, pedestrian and cycling networks in Murray Bridge, Renmark, Barmera, Berri, Loxton, Waikerie and other key towns to support tourism and active local communities • Safe and reliable road networks to support tourism and local travel, and improved access to key tourism sites • Upgrades to support safe and reliable heavy vehicle movements, including last mile access, to support horticulture, grain and other freight generating industries • Upgrades of boat ramps, moorings, jetties etc along River Murray and coast • Work with Local Government to implement the National Airport Safeguarding Framework within council development plans for Waikerie, Loxton and Renmark airports			

Figure 5-13 Murray and Mallee Solutions

Data source: Department of Planning, Transport and Infrastructure.

Solutions identified on this map may be subject to further intensive investigations and may vary as a result.

- Road improvements
- Passenger Transport improvements
- Growth Area Transport Infrastructure
- Road improvements
- Rail freight, ports, airports and intermodal improvements
- ▬ South Australian Government Region boundary
- Aboriginal lands
- Primarily cropping
- Primarily livestock
- Wine growing region
- Main road
- Freight railway
- Ferry



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