RIVERINA JO
JOINT ORGANISATION

REROC
RIVERINA EASTERN REGIONAL ORGANISATION OF COUNCILS

REGIONAL FREIGHT TRANSPORT PLAN

NOVEMBER 2019

REGIONAL FREIGHT TRANSPORT PLAN

CONTENTS

EXECUTIVE SUMMARY

This Plan has been prepared jointly by the Riverina Joint Organisation (RivJO) and the Riverina Eastern Regional Organisation of Councils (REROC) to provide guidance on transport and freight management planning for the eastern Riverina region of NSW. The Plan covers the following Local Government Areas: Bland, Coolamon, Cootamundra-Gundagai, Greater Hume, Junee, Lockhart, Temora and Wagga Wagga. It is the third iteration of the Plan, the first version having been released in 2014.

The Region, which is four times larger than Sydney, covers an area of some 40,000 sq kms and contains some of NSW's most heavily utilised road and rail transport corridors, including the Hume Highway, the Newell Highway, the Olympic Highway, the Burley Griffin Way and the Main Southern Rail Line. The Inland Rail will pass through the region, offering opportunities for access to new markets and cheaper freight costs.

This project analyses the effectiveness of the freight infrastructure network from a regional perspective. The implementation of integrated transport solutions for the Region is an overriding goal of the project. While the focus is on road networks the Plan also considers rail networks including the Inland Rail Line as part of the networks that are addressed.

Most of the 41 million tonnes of freight that is transported between NSW and Victoria each year[1] passes through the REROC region, primarily by road but also by rail. The NSW Freight and Ports Strategy estimates that by 2031 the freight task in NSW will almost double to 794 million tonnes[2]. The forecasted growth will add significant pressure to road and rail networks in the REROC region. It will also bring opportunities for the growth of logistics' based enterprises such as Qube Logistics at Harefield in Junee and the Riverina Intermodal Freight and Logistics Hub (RiFL) at Bomen in Wagga Wagga. Constraints on freight corridors hinder growth and inhibit economic activity, costing industry time and money and in some instances acting as a barrier to the establishment of new or the expansion of existing industries. Transport for NSW states that every 100 kms out of a truck driver's way costs $200, and that unecessary diverted freigth travel will cost NSW busineses almost $1 billion over the next 20 years[3].

In addition the Inland Rail is likely to have a significaint impact on freight movements in the Region. The Inland Rail route travels less than 50kms from all the Member Councils in the Region and directly through Greater Hume, Lockhart, Wagga Wagga, Junee and Cootamundra-Gundagai LGAs. The development is expected to create more opportunities for Intermodal Hubs (IMH) and will increase opportunties to move freight effeciently by rail. The Inland Rail estimates that by 2030

[1] Transport for NSW, *NSW Freight and Ports Strategy*, 2013 Pg. 21., [2] Ibid., pg. 19,

Australia will need to move more than 32 million tonnes of freight on road and rail between Melbourne and Brisbane, which is the equivalent of 1.2 million B-Double truck movements of freight each year[4].

The goal of this Plan is to provide a regional approach to transport planning whereby significant road and rail freight corridors are mapped and constraints on those corridors identified. In mapping these freight corridors we are also aware of the opportunities that Inland Rail, which is expected to be operational by 2025, will create and the new challenges it may present as freight movements change to accommodate the anticipated movement from road to rail. It is local roads that will feed into the IMHs that will service the Inland Rail, consequently more focus may need to be directed on local roads and their role in the freight task.

A set of goals and strategies have been identified that will assist the region realise its full potential in relation to the provision of freight transport solutions. In order to achieve a common approach to the determination of the Region's priority issues all the road routes in the region were assessed utilising a weighted matrix developed by REROC's Infrastructure and Transport Planning Sub-committee.

The project is underpinned by comprehensive on-line mapping of the eastern Riverina's freight routes, its modal points, constraints and pinch points. Users can view and manipulate the mapping layers to discover information about freight transport in the region by accessing the free facility at www.reroc.com.au

[3] Transport for NSW, *Fixing Country Roads and Rail: Improving Regional Freight Connectivity*, pg. 1, [4] ARTC, *The Case for Inland Rail,* Sept 2015, page 4

OUR GOALS AND STRATEGIES

The Region has adopted the following goals and strategies for Freight Transport:

Goal One: ***Remove identified road constraints within the region by 2021.***

Strategies

1. Utilise the priority assessment of roads to undertake preliminary costings and seek funding to address identified constraints.
2. Identify and implement initiatives that facilitate councils working collaboratively to address identified constraints.
3. Identify opportunities for councils to work in collaboration with State and Federal governments and agencies to address identified constraints, including opportunities for joint funding.

Goal Two: ***Develop a network of identified freight corridors that facilitate the efficient and effective movement of freight within and through the region.***

Strategies:

1. Work with industry and the Federal and State Governments to identify existing corridors and their constraints.
2. Promote the use of designated regional freight corridors to users and potential users.
3. Develop long term plans to fund improvements for roads that form part of an identified freight corridor.
4. Encourage transport and logistics development on identified corridors through planning and economic development initiatives.

Goal Three: ***Support the development and implementation of integrated freight transport solutions.***

Strategies

1. Promote the use of multiple transport modes for freight movements.
2. Support the use of branch lines for freight movement.
3. Work with industry, State and Federal agencies to develop and implement integrated transport solutions.

Goal Four: ***Support the growth and development of logistics solutions that improve freight movement.***

Strategies

1. Work collaboratively with industry to identify logistics' solutions for the region that improve freight movement.
2. Source funding that supports the growth and development of logistics' solutions.

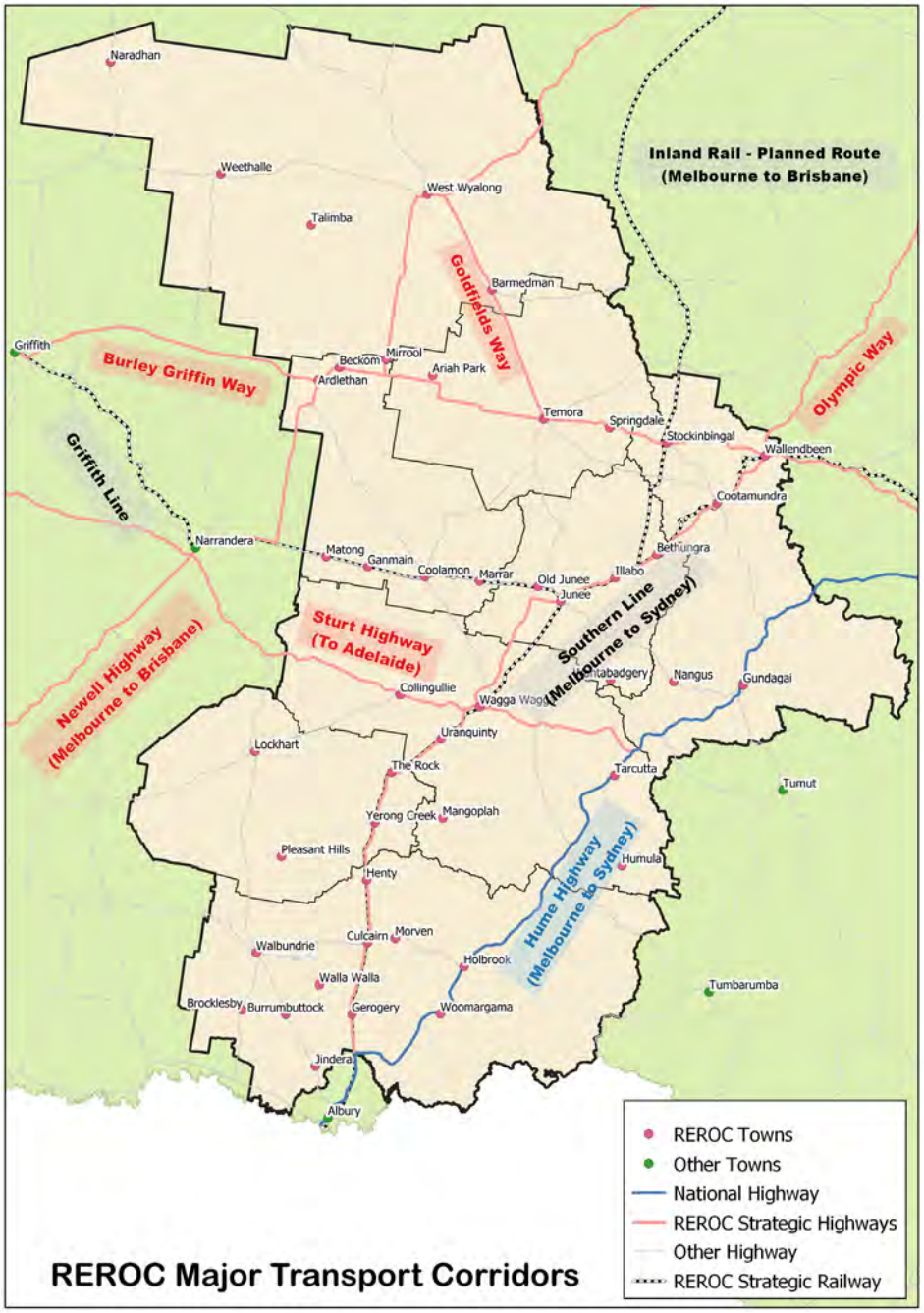
PART ONE: INTRODUCTION

Freight and logistics are an integral part of the economic well-being of the eastern Riverina. The Region contains the main Sydney-Melbourne road corridor, the Hume Highway, the Main Southern Rail Line, as well as the main Melbourne-Brisbane road corridors; the Newell Highway, the Burley Griffin Way and the Olympic Highway. The Region also contains the Sturt Highway which is part of the main Sydney-Adelaide transport corridor.

The Inland Rail route runs down the centre of the Region, through the LGAs of Greater Hume, Lockhart, Wagga Wagga, Junee and Cootamundra-Gundagai, while Temora, Coolamon and Bland shires are within 50kms of the route.

The NSW Freight and Ports' Strategy has estimated that by 2031 the freight task in NSW will almost double to 794 million tonnes[5]. While coal is expected to continue to comprise the largest component of the freight task, all other commodities are forecast to grow by between 2 and 3 percent[6]. This growth will impact on transport corridors throughout the eastern Riverina.

Transport for NSW has forecast growth in 17 supply chains, 10 of which are commodities that are generated within the Riverina region or have a destination within the Region:

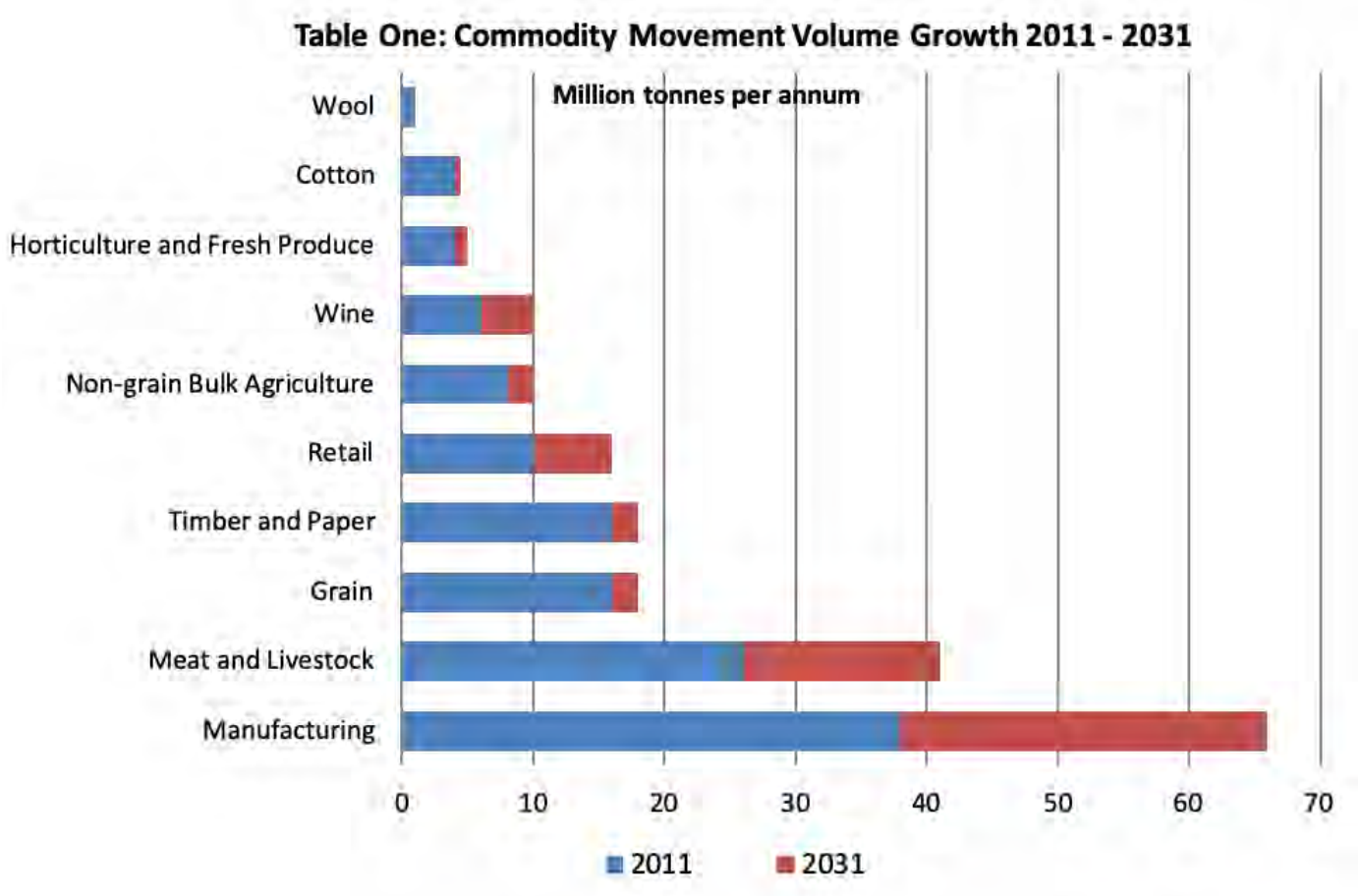


1. Manufacturing
2. Meat and Livestock
3. Grain
4. Timber and Paper
5. Retail
6. Non-grain Bulk Agriculture
7. Wine
8. Horticulture and Fresh Produce
9. Cotton
10. Wool

Table One (following page) shows the estimated growth in commodity movements for the selected streams.

The forecasted growth will add significant pressure to road and rail networks in the Region. Rural and regional roads are already groaning under the weight of an increasing freight task. The closure of branch rail lines has forced more grain onto roads and this together with the consolidation of grain receival terminals and the creation mega-storage facilities means that grain movements by road are likely to increase in the future.

[5] Transport for NSW, NSW Freight and Ports Strategy, 2013, pg. 19, [6] Ibid.



The Qube freight hub on the Main Southern Rail line / at Harefield in Junee Shire

However the growth will also bring opportunities for the expansion of logistics' based enterprises such as Qube Logistics at Harefield in Junee, and the Riverina Intermodal Freight and Logistics Hub (RiFL) at Bomen in Wagga Wagga. RiFL has seen significant State and Federal investment in it's development.

Producers in the Region are able to choose between transporting products south to the Port of Melbourne or north to Port Botany. This places the Region in a unique position, and enhances its prospects for growth in the transport and logistics field. Further opportunities may arise if more freight is shifted to rail as a result of the increase in container capacity to and from Port Botany and the establishment of Inland Rail.

Most of the 41 million tonnes of freight that is transported between NSW and Victoria each year[7] passes through the Region, primarily by road.

Our Member Councils agree with Transport for NSW's proposition that essential to the delivery of good freight outcomes is corridor planning. In addition, the Member Councils are committed to the promotion of integrated freight transport solutions; road corridors connecting with rail corridors that connect with air and sea services. Integration offers the Region and the State the opportunity to deliver the most effective freight solutions in terms of efficiency and effectiveness.

Our Members are concerned that much of the freight planning in the State has focused on Sydney's needs and the needs of the mining sector. However the Region is part of Riverina, one of the most significant food bowls and agricultural production areas in Australia, producing over $1 billion of agriculture and

[7] Ibid. Pg. 21.

horticultural product each year. The region is Australia's largest producer of wine, about 50% of production is exported[8].

The Riverina region also produces:

- over 25% of NSW fruit and vegetables;
- 90% of NSW citrus products;
- 80% of NSW wine/grapes;
- almost 20% of NSW crop production representing two-thirds of the State's crop value[9];
- $574 million in plantation softwoods.

All this produce either leaves the Region as fresh food or beverages or is transported elsewhere often within the Region for processing then transported out. Consequently the freight task is significant and for this reason the Member Councils have committed to the development and implementation of a Regional Freight Transport Plan.

Our members agree with Transport for NSW's assessment that there has been an under investment in rail. In the Region this under investment, including the closure of branch lines, has resulted in more of the grain freight task being pushed onto roads including local roads. The recent infpormation on the NSW Grain Harvest Management Scheme showed that 67% (over 3,622,787 tonnes) of reported grain deliveries were delivered using GHMS of which approx. 33% travelled on roads in the REROC region. Our Members therefore see as vital the development of a regional freight strategy that addresses the challenges of providing freight solutions that will promote the economic well-being of the entire Region.

The following maps show the major freight transport routes for commodities and their modal points and the HML routes within the eastern Riverina.

Freight train waits at Bomen Industrial Estate at Wagga Wagga

Canola in bloom in the eastern Riverina

Major grain receival facility located on the Main Southern Rail Line at Illabo in Junee Shire

[8] NSW Trade and Investment, Riverina Profile, https://www.business.nsw.gov.au/invest-in-nsw/regional-nsw/nsw-regions/riverina
[9] Ibid., [10] NSW State and Regional Development, Profile of the Timber Industry in the South West Slopes Region of NSW, http://forestindustrycouncil.com.au/factsheets/SWS_final_summary.pdf, [11] Transport for NSW, Op. Cit., pg. 27.

MAJOR GRAIN FREIGHT ROUTES AND MODALS

MAJOR LIVESTOCK FREIGHT ROUTES AND MODALS

MAJOR TIMBER/PULP AND PAPER FREIGHT ROUTES AND MODALS

HML ROUTES


Naradhan
Weethalle
West Wyalong
Talimba
Barmedman
Griffith
Mirrool
Beckom
Ariah Park
Ardlethan
Temora
Springdale
Stockinbingal
Wallendbeen
Cootamundra
Narrandera
Matong
Ganmain
Coolamon
Marrar
Bethungra
Illabo
Old Junee
Junee
Wantabadgery
Nangus
Gundagai
Collingullie
Wagga Wagga
Uranquinty
Lockhart
The Rock
Tarcutta
Tumut
Yerong Creek
Mangoplah
Pleasant Hills
Humula
Henty
Culcairn
Morven
Walbundrie
Holbrook
Walla Walla
Tumbarumba
Brocklesby
Burrumbuttock
Gerogery
Woomargama
Jindera
Albury
REROC HML Routes

MAJOR GRAIN FREIGHT ROUTES AND MODALS

PART TWO: ABOUT THIS PLAN

This project was initiated to investigate the freight infrastructure network from a regional perspective. The implementation of integrated transport solutions for the Region is an overriding goal of the project and to that end both the rail and road transport networks that service the eastern Riverina region have been reviewed.

In the past councils have been concerned with road and rail movements within their own local government boundaries, this project considers the bigger picture, identifying regional issues that impact on efficient and effective freight movements from within and through the eastern Riverina region. To that end a study of the movement of vehicles and infrastructure needs from a regional basis has been undertaken. In undertaking this task the Freight Routes of Regional Significancehave been identified in the following categories:

1. National and State Roads
2. Regional Roads
3. Local Roads

The first stage of the Plan required detailed mapping that linked industry sources to destinations. These infrastructure links were examined to determine blockages or hindrances to the efficient movement of freight, which allowed the identification of the Region's corridor constraints.

At the outset a commitment was made to utilise spatial data technologies to map the outcomes of the project, consequently the final outcomes are available in report form and on-line as interactive maps which can be accessed at www.reroc.com.au/projects/regional-freight-transport-plan

The Plan is intended to identify the significant constraints impacting on the delivery of freight solutions in the region and to that end a Multi-criteria Weighted Assessment Matrix (the Matrix) was developed to assist in assessing the overall impact of each corridor constraint. (Further information on the the Matrix is included at Appendix One). Members utilised the Matrix to assess and score each constraint, the score determined the level of priority given by the Plan to the constraint. Routes were also assessed against the NSW Benefit Cost Ratio (BCR) to provide a robust assessment of the impacts of the route constraints.

Yarrara Gap Road, Greater Hume Shire (Photo: Margaret Killable)

ASSESSMENT OF ROUTE CONSTRAINTS

Member Councils have developed and agreed to to use Multi-criteria Weighted Assessment Matrix (the Matrix) to assess each of the 36 freight routes identified in the Plan. The intention was to use the Matrix to categorise the routes according to the impact the route's constraint or constraints had on the efficient movement of transport. Where a route traversed more than one LGA the council in each LGA assessed the section of the route as it pertained to their LGA. In order to ensure uniformity in the assessment process, each criteria and score was given a descriptor to guide the scoring process. The assessment matrix is reproduced in Appendix One.

The goal of the assessment is to inform investment decisions in relation to roads in the Region. All the listed roads are integral to the freight task in the Region therefore where an opportunity presents for investment in any one of the routes, which will address some or all of its constraints, then that opportunity will be pursued. A summary of the 36 routes and their constraints is listed below.

Constraint Number	Constraint	Description of Constraint
STATE ROADS		
1. Hume Highway M31		
1.1	Changing Traffic Patterns ***Greater Hume, Cootamundra-Gundagai LGAs***	The completion of the dual carriageway may alter traditional traffic patterns diverting traffic to roads that link with the major highways e.g. Burley Griffin Way which links the Hume Highway with the Newell Highway.
1.2	Sheahan Bridge at Gundagai ***Cootamundra-Gundagai LGA***	The Bridge is not approved for A-Double vehicles.
2. Olympic Highway, MR78, Route Number A41		
2.1	The Gap Bridge Underpass at Cootamundra ***Cootamundra-Gundagai LGA***	Bridge height limits High Vehicle access to 4.5 metres. Alternate route adds 8 kms to the journey. The Main Southern Rail Line is vulnerable at this point from accidents that occur when heavy vehicle drivers misjudge the underpass' clearance.
2.2	Roundabout at Culcairn CBD ***Greater Hume LGA***	Roundabout is an impediment to oversize vehicles.
2.3	Railway Crossing at Illabo ***Junee LGA***	A right angled crossing in a 100 km zone requires realignment.
2.4	Roundabout at Wallendbeen ***Cootamundra-Gundagai LGA***	Roundabout is an impediment to oversize vehicles.
2.5	Overpass at Wallendbeen ***Cootamundra-Gundagai LGA***	The restricted road width is an impediment to oversize vehicles.
2.6	Insufficient Stacking Distance ***Greater Hume, Lockhart, Junee, Cootamundra-Gundagai LGAs***	The Highway's proximity to the Main Southern Rail Line has resulted in several locations where the stacking distance is insufficient for B-Doubles turning off the Highway and waiting to cross the rail line.
2.7	Railway Crossing North-east of Bethungra ***Junee LGA***	A right angled crossing in a 100 km zone requires realignment.

2.8	Road under rail crossing at the end of the Main St of Junee ***Junee LGA***	The underpass is not compliant with Austroads/RMS standards for A Double turn paths. There is a height restriction and heavy vehicles need to cross over the centre line to navigate the road.
3.Newell, State Hwy 17		
3.1	Changing Traffic Usage ***Temora, Bland LGAs***	Heavy vehicles are choosing the Hume Highway-Olympic Way-Goldfields Way route or the Hume Highway-Burley Griffin Way to link to the Newell significantly changing traffic patterns for those routes.
3.2	Highway subject to flooding ***Bland LGA***	The road was closed for 43 days from 23 September 2016, and reopened on 4 November 2016 due to flooding.
3.3	Inadequate road width and insufficient passing lanes ***Bland LGA***	Highway needs to be widened for AB-Triple Road Trains. It requires a one metre centre line separation extension and additional passing lanes.
4. Mid Western Highway, National Route 24, Route Numbers A41 and B64		
4.1	Inadequate Shoulder Width ***Bland LGA***	The Highway includes long lengths of road without much shoulder width making it difficult for vehicles to share the road.
5. Burley Griffin Way Route Number MR 84,B94		
5.1	Heavy Vehicle Alternate Route ***Temora LGA***	The alternate route is required to address the problem with the roundabout at Hoskins Street and to remove heavy vehicle movements from the CBD area.
5.2	Causeway between Newell Highway and Wallendbeen ***Cootamundra-Gundagai, Temora LGAs***	Culvert sizes are too small to cope with large rain events, resulting in flooding and road closures.
5.3	Roundabout at Wallendbeen ***Cootamundra-Gundagai LGA***	The roundabout is an impediment to oversize vehicles.
5.4	Overpass at Wallendbeen ***Cootamundra-Gundagai LGA***	The restricted road width is an impediment to oversize vehicles.
6. Goldfields Way, MR57, Route Number B85		
6.1	No Heavy Vehicle Bypass at Temora ***Temora LGA***	All heavy vehicles using the Highway must travel through the Temora CBD, creating significant inefficiencies for transport operators.
6.2	Road between Gidginbung and West Wyalong is subject to flooding ***Bland and Temora LGAs***	The road is the same level as the area around it and as a result is subject to flooding. The Road needs to be raised and the pavement strengthened.
6.3	Road pavement between Gidginbung and West Wyalong is inadequate ***Bland and Temora LGAs***	The Road pavement needs strengthening.

6.4	Stacking distance between state road and railway line insufficient ***Temora LGA***	There is insufficient stacking distance for B Doubles and Road Trains to operate safely and in accordance with NHVR network classification guidelines.
7. Sturt Highway, Highway 20, Route Number A20		
7.1	No Bypass at Wagga Wagga ***Wagga Waga City LGA***	Heavy vehicles must travel through part of the Wagga Wagga CBD, interacting with local traffic, pedestrians and a school zone.
7.2	Truck/trailer Interchanges at Wagga Wagga ***Wagga Waga City LGA***	Increasing practice of decoupling trailers on side roads to wait for an interchange is causing problems in the City. There are no specialist parking bays currently available
7.3	Height of the Rail over Road Bridge ***Wagga Waga City LGA***	The permissible height stops oversized loads from passing under the bridge
8. Wagga to Tumbarumba Road, MR284, State Road/MR384, Regional Road		
8.1	Different Road classifications ***Wagga Wagga City, Greater Hume, Snowy Valleys LGAs***	The road carries a number of different classifications which restricts access for heavy vehicles. It is a Regional Road in Wagga Wagga and a State Road in Greater Hume and Snowy Valleys.
8.2	Bridges not Assessed ***Wagga Wagga City, Greater Hume, Snowy Valleys LGAs***	A number of bridges along the route have not been assessed and therefore are not approved for HML usage.
REGIONAL ROADS		
9. Canola Way, MR243		
9.1	Restricted B Double Access ***Cootamundra-Gundagai LGA***	The road connects with the Newell Highway, however B-Doubles cannot reach the Hume Highway because there is no access between Nangus and Gundagai
9.2	Tight Movement in Junee Township ***Junee LGA***	Tight turning movements in town streets, including a four 90 degree turns and one roundabout make travel through Junee township by heavy vehicles difficult.
9.3	Jubilee Bridge not Assessed ***Junee LGA***	The Bridge is not assessed for HML use.
10. Wagga to Coolamon Rd (Coolamon Rd) and Coolamon to Ardlethan (Ardlethan Rd), Coolamon Rd AADT1730, Ardlethan Rd MR240 and AADT480		
10.1	Coolamon Main Street divided by railway line ***Coolamon, Temora Wagga Wagga LGAs***	If the crossing is closed the nearest alternative crossing is 5 kms away

11. Mary Gilmore Way, MR398, Route Number AADT300		
11.1	Deficient Road Width ***Coolamo Temora, Bland LGAs***	Shoulder width is less that 1.0m creating a safety hazard for drivers
12. Boomerang Way, MR59		
12.1	Deficient Road Width ***Lockhart LGA***	The route is too narrow for HML/large vehicles. Funding has been received for works that will commence in 2019/20
12.2	Pavement Strength is Deficient ***Lockhart LGA***	Pavement strength does not meet the needs of CML/large vehicles. Funding has been received for works that will commence in 2019/20
13. Milvale Road, MR241		
13.1	No constraints identified ***Temora LGA***	
14. Cootamundra to Stockinbingal Road, MR235		
14.1	Bridge not Assessed ***Cootamundra-Gundagai LGA***	Bridge at Nioka not assessed for HML
15. Holbrook to Wagga Wagga Road, MR211		
15.1	Vertical and Horizontal Alignment ***Greater Hume, Wagga Wagga City LGAs***	There is poor alignment in a number of locations.
15.2	Sealed Width ***Greater Hume, Wagga Wagga City LGAs***	Some parts of the road have inadequate width for large vehicles. The seal width in Wagga Wagga LGA is 6.9 to 7.2 metres with unsealed shoulders of 0.5 to 1.5 metres. Pavement width is also inadequate in Greater Hume Shire.
15.3	Multiple Bridge Assessments Required ***Greater Hume, Wagga Wagga City LGAs***	With the exception of Greater Hume LGA, there are multiple bridges along the route that have not been assessed as suitable for use by HML vehicles
15.4	Restricted B Double Access ***Greater Hume, Wagga Wagga City LGAs***	Restricted access in Wagga Wagga LGA the section is not approved for use by B-doubles due to poor horizontal and vertical alignment and narrow seal width.
16. Coolac to Cootamundra Rd, MR87		
16.1	HML Route Approval ***Cootamundra-Gundagai LGA***	HML approval has been granted within former Cootamundra Shire but not for the rest of the route.
16.2	Cullinga Creek Causeway flooding ***Cootamundra-Gundagai LGA***	Requires upgrading to reduce danger and inconvenience of flooding.

16.3	Load limits on Bridges ***Cootamundra-Gundagai LGA***	Two bridges on the Muttama Rd do not meet load limit requirements and need to be upgraded
17. Coolamon to The Rock, MR543		
17.1	Mundowy Bridge not Assessed ***Wagga Wagga City LGA***	The bridge which spans the Murrumbidgee River is not assessed or approved for B Double access.
18. Culcairn-Holbrook Road, MR331		
18.1	Road Width and Strength ***Greater Hume LGA***	About 5 kms of road between Morven and Holbrook and 1.5kms between Morven and Culcairn requires reconstruction and widening by 1.5 metres and pavement strengthening.
18.2	Willow Bend Creek Bridge ***Greater Hume LGA***	Bridge needs widening to improve safety.
19. West Wyalong-Condobolin Road, MR57		
19.1	Pavement Width and Strength Inadequate ***Bland LGA***	Road pavement width and strength is deficient and does not meet requirements for current usage or for HML and A-B Triples
20. Kywong - Howlong Road, MR370		
20.1	Pavement width and strength ***Greater Hume LGA***	Inadequate to meet the demands of heavy vehicles for approximately 30kms in length within Greater Hume Shire. Upgrading is continuing under repair program for regional roads.
21. Jingellic Road (MR331)		
21.1	Road Width and pavement strength ***Greater Hume LGA***	37.9 kms of road is inadequate in width and strength for heavy vehicles
21.2	Bridge width and strength ***Greater Hume LGA***	Five bridges are too narrow and not suitable for HML
LOCAL ROADS		
22. Ardlethan Township, Local Road, Coolamon Shire		
22.1	Road Alignment ***Coolamon LGA***	Road alignment at Ardlethan is not suitable for heavy vehicles accessing the grain receival point. Road geometry through Ardlethan is unsuitable and does not cater for road train turning circle requirements.
23. Combaning Road, Local Road, Temora and Junee Shires		
23.1	Intersection Upgrade ***Temora and Junee LGAs***	Intersection with Old Cootamundra Road requires standardisation

24. Eunony Bridge Road - Byrnes Road, Local Road, Wagga Wagga City		
24.1	Eunony Bridge not suitable for use by CML or HML Vehicles ***Wagga Wagga City LGA***	The Bridge does not take HML vehicles this restricts access to Bomen Industrial Area the proposed RIFLH and Qube Logistics which operates at Harefield. HML vehicles must travel through Wagga Wagga on the Sturt Highway and the use the Gobbagombalin Bridge to access Bomen.
24.2	Pavement capacity is inadequate ***Wagga Wagga City LGA***	A wider and thicker pavement is required for use by HML vehicles
24.3	Realignment at Junee Township through Wrights Oval ***Junee LGA***	The route is not compliant with required standards for A-Double turn paths. Heavy vehicles must negotiate two 90 degree bends within a short distance in an urban area.
25. Harefield Road, Local Road, Junee Shire		
25.1	Road Geometry and Bridge ***Junee LGA***	The Eunony Bridge at Wagga Wagga is not assessed and the road geometry does not support the use of HML
25.2	Road Renewal Required ***Junee LGA***	11kms road requires renewal to appropriate specifications to carry HML.
26. Old Narrandera Road, Local Road, Wagga Wagga City		
26.1	Bridge and route not assessed ***Wagga Wagga City LGA***	Bridges over several creeks along the road have not been assessed for use by HML vehicles.
27. Dirnaseer Road/Suttons Lane, Local Road, Cootamundra Shire		
27.1	Railway Bridge not assessed ***Cootamundra-Gundagai LGA***	The railway bridge on Dirnaseer Road has not been assessed for HML.
27.2	Bridge Width Inadequate ***Cootamundra-Gundagai LGA***	Width of the bridge restricts traffic to single vehicle travel at all times.
28. Coppabella Road, Local Road, Greater Hume Shire		
28.1	Half the Road is unsealed ***Greater Hume LGA***	Road is unsealed, has poor pavement and vertical and horizontal alignment. Funding to upgrade the road has been requested from the NSW government via Softwoods Working Group.
28.2	Single lane bridge ***Greater Hume LGA***	The bridge is insufficient to meet growing demands by industry. Funding to upgrade the road has been requested from the NSW government via Softwoods Working Group.
29. Grubben Road, Local Road, Greater Hume and Lockhart Shires		
29.1	Inadequate stacking space/ accommodation for long vehicles ***Greater Hume LGA***	Requires that B-Doubles must travel through the Henty CBD, which adds time to the journey and impacts on the safety and amenity of the CBD. Funding has been obtained for the re-alignment and a new reail crossing works are underway and should be completed by mid-2010
29.2	Narrow Road ***Greater Hume LGA***	1.7kms of road in Greater Hume Shire requries reconstruction and wdening

30. Bygoo Road, Local Road, Coolamon and Bland Shires		
30.1	Deficient road width for Road Trains ***Coolamon and Bland LGAs***	Approximately 5 kms of the road has insufficient width to support use by road trains.
30.2	Deficient pavement strength for Road Train and HML Use ***Coolamon and Bland LGAs***	Road is of poor structural standard and is largely earth formed with seal.
31. Rannock Road, Local Road, Coolamon shire		
31.1	Deficient road pavement for HML ***Coolamon LGA***	Road has insufficient pavement strength to support use by HML vehicles and road trains
31.2	Drainage Structures require Assessment ***Coolamon LGA***	Drainage Structures at Mimosa Creek requires assessment to determine if they are capable of supporting HML and road train usage
32. Adjungbilly Road, Local Road, Cootamundra-Gundagai Shire		
32.1	Deficient Road width for HML ***Cootamundra-Gundagai LGA***	Road width is insufficient to support use by HML vehicles. Funding has been received to address the constraint, works to be completed by January 2020
33. Matong North Road, Coolamon Shire		
33.1	Bridge Assessment required ***Coolamon LGA***	Redbank Creek Bridge is not assessed and therefore HML access is restricted.
34. Marrar South Road, Coolamon Shire		
34.1	Poor road formation and geometry ***Coolamon, Junee and Wagga Wagga LGAs***	Deficient pavement strength for vehicle use above GML.
35. Kolkilbertoo Road, Local Road, Bland Shire		
36.1	Road width insufficient ***Bland LGA***	Road pavement width is insufficient and does not meet requirements for use by HML and Road Train vehicles.
36. Wattles Rd, Local Road, Bland Shire		
36.1	Deficient road width and pavement and intersections require redesign ***Lockhart LGA***	The Road does not meet requirements for HML. The Road pavement width is deficient, the pavement requires sealing and the intersections require redesign.

CONSIDERATION OF THE PLAN AGAINST RELEVANT STATE PLANS

This Plan operates within a wider context of NSW State planning. Therefore the goals within each of the relevant state planning instruments that are captured by this Plan have been identified as follows:

20 year Economic Vision for Regional NSW

The following goals are addressed through the implimentation of this plan.

1. Imrpove Freight Networks

NSW Freight and Ports Plan 2018-2023

The following Freight and Ports plan objective would be addressed through the implementation of this Plan:

- Objective 1 - Economic Development
- Objective 2 – Efficiency, Connectivity and Access
- Objective 3 – Capacity
- Objective 4 – Safety

Regional NSW Services and Infrastructure Plan

The plan supports the following key initiative:

- Rail and road connections to Inland Rail

PART THREE: GOALS AND STRATEGIES

GOAL ONE:

Remove identified road constraints within the region by 2021.

In developing this Plan the Member Councils identified a number of constraints that act as barriers to the efficient transport of freight through and within our Region. The Member Councils recognise that it is unrealistic for every constraint to be addressed and therefore an assessment matrix was developed with a view to prioritising the constraints so that informed investments could be made. We have also made use of the BCR developed by Transport for NSW to further inform the prioritisation process. In addition we believe it will provide opportunities to address works that can be undertaken on a collaborative basis through resource sharing with other councils, relevant State and Federal agencies or through activities such as group tendering.

The assessment matrix considered a number of factors including the history of fatalities, the level of road use, and the type of freight transported, impacts on local amenity and regional economic outcomes. The matrix is reproduced at Appendix One.

STRATEGIES

1. Utilise the priority assessment of roads to undertake preliminary costings and seek funding to address identified constraints.
2. Identify and implement initiatives that facilitate councils working collaboratively to address identified constraints.
3. Identify opportunities for councils to work in collaboration with State and Federal governments and agencies to address identified constraints.

GOAL TWO:

Develop a network of identified freight corridors that facilitate the efficient and effective movement of freight within and through the region.

This goal aims to direct investment into designated freight corridors, creating routes that provide optimal conditions for road freight.

One of the challenges which all councils are facing as a result of the growth in freight transport on rural roads is that the roads are often unsuited to constant and prolonged use by heavy vehicles. While much discussion has focused on "last mile" issues councils recognise that country roads with poor pavement strength and tight turns also undermine efficient road transport. The Region includes a significant number of bridges that require upgrade for HML use. In addition the limited knowledge about the capacity of drainage structures on many rural and regional roads has the potential to further undermine efficient transport movement when roads are subject to flooding.

The problems have been exacerbated by a growing trend by grain companies to consolidate collection at large sites which has resulted in grain being transported by road over much longer distances.

The downgrading of the branch line infrastructure has meant that instead of grain being transported to its closest collection point by road and then to an aggregation point using a branch line, most grain is being transported by road directly to aggregation points. This has significantly changed road use profiles, where once country roads were dominated by small transport vehicles councils are now finding increasing use of HML vehicles on roads that were not designed to accommodate them.

It would be highly inefficient for councils and the State to attempt to upgrade every road that is being used. It therefore makes economic sense to develop and promote designated transport corridors where local, State and Federal governments can agree to focus investment. The strategies in this area aim to achieve that goal.

STRATEGIES:

1. Work with industry and the State Government to identify existing corridors and their constraints.
2. Promote the use of designated regional freight corridors to users and potential users.
3. Develop long term plans to fund improvements for roads that form part of an identified freight corridor.
4. Encourage transport and logistics development on identified corridors through planning and economic development initiatives.

GOAL THREE:

Support the development and implementation of integrated freight transport solutions.

The Member Councils are committed to the implementation of integrated freight transport solutions. This means that multiple transport modes should be available and utilised to provide the most effective transportation options. This includes the effective use of branch lines and air transport where

appropriate. The strategies that will be pursued are as follows:

STRATEGIES

1. Promote the use of multiple transport modes for freight movements.
2. Support the use of branch lines for freight movement.
3. Work with industry, State and Federal agencies to develop and implement integrated transport solutions.

GOAL FOUR:

Support the growth and development of logistics' solutions that improve freight movement.

The Region's unique geographic location makes it ideal for the development and growth of logistics' solutions such as freight hubs, freight forwarding companies and transport businesses.

New and expanding logistics' businesses benefit the entire Region and therefore it is in the Region's interests to facilitate the growth of these enterprises. The strategies that will be pursued are:

STRATEGIES

1. Work collaboratively with industry to identify logistics solutions for the region that improve freight movement.
2. Source funding that supports the growth and development of logistics solutions.

PART FOUR: REVIEW OF ROAD ROUTES OF REGIONAL SIGNIFICANCE

NATIONAL & STATE ROADS

1. HUME HIGHWAY (M31)

REROC LGAs on Route: Greater Hume, Wagga Wagga, Cootamundra-Gundagai
Major NSW towns on route: Albury, Holbrook, Gundagai, Goulburn, Sydney
Major Industries Serviced: General Freight, Tourism

The Highway is the major route for Sydney to Melbourne traffic. The final upgrade has been completed making the route dual carriage way for its entire length, it is expected that the improvement will result in some changes to traditional traffic patterns for heavy vehicles.

The industry's move to A Doubles has resulted in the identification of a problem with the Sheahan Bridge at Gundagai. The Bridge was duplicated in 2009, the original bridge which services northbound traffic is not approved for A-Double vehicles, councils in the region are now being asked to approve A-Double routes on regional roads as transport operators try to identify alternative routes to resolve the problem.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

1.1 Changing Traffic Patterns – the completion of the dual carriageway may alter traditional traffic patterns diverting traffic to roads that link with the major highways e.g. Burley Griffin Way which links the Hume Highway with the Newell Highway.

1.2 Sheahan Bridge at Gundagai for north bound traffic – the bridge is not approved for A-Double transport,

Sheahan Bridge at Gundagai is not approved for A-Doubles (photo NSW RMS)

2. OLYMPIC HIGHWAY (MAIN ROAD 78, ROUTE NUMBER A41)

REROC LGAs: Greater Hume, Lockhart, Wagga Wagga, Junee, Cootamundra-Gundagai
Major towns on route: Culcairn, Henty, Wagga Wagga, Junee, Cootamundra, Young, Cowra
Major Industries Serviced: Grain, Livestock, General Agriculture, Tourism, alternative route between Melbourne and Sydney, alternative route between Melbourne and Brisbane.

The Olympic Highway runs for 316 kms from Table Top in the south of the REROC region to Cowra in the north. It crosses through the towns of Culcairn, Henty, The Rock, Wagga Wagga, Junee and Cootamundra within the REROC region and then further north to Young and Cowra.

The Olympic Highway is a major freight route and an alternative route to the Newell Highway linking Victoria to Queensland. It is also an alternative route to the Hume Highway for traffic between Melbourne and Sydney.

The Olympic has undergone three major upgrades in the last 18 years. The 7 km Gobbagumbalin Deviation at Wagga Wagga was opened in 1997. The Deviation which included a new bridge ensured that the Highway was no longer impacted by flooding in north Wagga Wagga. In 2005 a new bridge over rail opened just south of Gerogery which addressed the problem of an unsafe road/rail interface.

In late 2014 a $19.5 million project to replace Wagga Wagga's 132 year-old Kapooka Bridge and realign its approaches was announced. The new bridge is expected to be open in mid-2016 removing a substantial impediment to heavy vehicle movement on the Highway.

For much of its length, the Highway follows the Main Southern Rail Line, which has meant that as branch lines have closed, grain that used to be stored in branch line silos is now being transported along the Olympic Highway to major grain receival points.

The new Kapooka Bridge was opened in July 2016

At Culcairn, Bethungra and Illabo the Olympic Highway takes sharp left and right hand bends to cross the Main Southern Rail Line, there are bells and gates at the crossings.

At Junee the road dog-legs under a rail crossing and the end of the Main street. The underpass is not compliance with Austroads/RMS standards for A-Double turn paths. There is a height restriction of 4.5 metres and a tight 90 degree bend. Heavy vehicles negotiating the turn are forced across the centre line which is unsafe in a highly trafficked urban area.

The Gap Bridge, Olympic Highway at Cootamundra

At Cootamundra, the Highway runs under the Main Southern Rail Line There have been significant problems with this underpass, known as The Gap Bridge. There is an alternative High Vehicle detour route, Suttons Lane (see Route Number 35) around the Bridge which adds approximately 8 kms to the journey. However because of the additional kilometres heavy vehicle drivers often choose to attempt to pass under the Bridge by deflating the vehicle's airbags and driving down the centre of the road. On occasion drivers misjudge their capacity to clear the underpass and as a consequence hit the bridge, disrupting both road and rail services.

Right angled bend on the Main Southern Rail line north of Illabo

Our member councils are concerned that should a major incident occur at the underpass it would not only restrict access to the Olympic Highway it would also render the Main Southern Rail Line inoperable.

Approximately 30 kilometres north-east of Illabo the Highway crosses the Main Southern Railway line at a right angle. There have been over 50 accidents in the last 10 years at the crossing, many involving heavy vehicle roll overs and one causing a major train crash.

All councils on the route are reporting increasing traffic on the Highway, particularly heavy vehicles travelling from Melbourne to Brisbane and return. The roundabouts on the highway at Culcairn CBD and Wallendbeen are also considered to be a safety issue and an impediment to oversize vehicles that are required to use the route.

There are several locations, due to the Highway running parallel to the Main Southern Line where the stacking distance is insufficient for B-Doubles turning off the Highway and waiting to cross the rail line. This limits access and usage of local roads. For example where Grubben Road in Greater Hume Shire intersects the Highway just north of Henty, there was a near miss with an XPT and a B-Double. Grubben Road provides the main access to the Henty Graincorp facility. The Grubben Road constraint has recently received State and Federal funding, works should be completed by mid-2020. In addition the Highway is experiencing increasing use by forestry industries as a result of the transport of logs sourced in the Bathurst/Oberon region and transported south to supply the Visy Mill in Tumut

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

2.1 ***The Gap Bridge Underpass at Cootamundra*** – high vehicle access is limited at this point on the Highway. In addition the Main Southern Rail Line is vulnerable at this point from accidents that occur when heavy vehicle drivers misjudge the underpass' clearance.

2.2 ***Roundabout at Culcairn CBD*** – is an impediment to oversize vehicles that use the route.

2.3 ***Railway Crossing at Illabo*** – this is right angled crossing in a 100 km zone requires realignment.

2.4 ***Roundabout at Wallendbeen*** – acts as an impediment to oversize vehicles that use the route.

2.5 ***Overpass at Wallendbeen*** – the restricted road width is an impediment to oversize vehicles.

2.6 ***Insufficient Stacking Distance*** –due to the Highway running parallel to the Main Southern Line where the stacking distance is insufficient for B-Doubles turning off the Highway and waiting to cross the rail line. This limits access and usage of local roads. This is a problem in Greater Hume, Lockhart, Junee and Cootamundra-Gundagai LGAs.

2.7 ***Railway Crossing at North East of Bethungra*** – this is right angled crossing in a 100 km zone requires realignment.

2.8 ***Road under Rail Crossing at end of Junee Main Stree***t - The underpass is not compliant with Austroads/RMS standards for A Double turn paths. There is a height restriction and heavy vehicles need to cross over the centre line to navigate the road.

The Roundabout at Wallendbeen


Naradhan
Weethalle
West Wyalong
Talimba
Barmedman
Griffith
Beckom
Mirrool
Ariah Park
Ardlethan
2.5 Overpass at Wallendbeen
Temora
Springdale
Stockinbingal
2.4 Roundabout at Wallendbeen
Wallendbeen
Cootamundra
2.1 Gap Bridge Underpass
2.7 Railway Crossing North East of Bethungra
Bethungra
Coolamon
Marrar
Illabo
Old Junee
Junee
2.3 Railway Crossing at Illabo
Wantabadgery
Nangus
Gundagai
Collingullie
Wagga Wagga
Uranquinty
Lockhart
The Rock
2.6 Insufficient Stacking Distance
Tumut
Yerong Creek
Mangoplah
Pleasant Hills
Humula
Henty
2.2 Roundabout at Culcairn
Culcairn
Morven
Walbundrie
Holbrook
Walla Walla
Tumbarumba
Brocklesby
Burrumbuttock
Gerogery
Woomargama
Jindera
Albury
REROC Constraints
Olympic Highway

3. NEWELL HIGHWAY (STATE HIGHWAY 17)

REROC LGAs: Coolamon, Bland, Temora
Major NSW towns on route: Jerilderie, Narrandera, West Wyalong, Parkes, Dubbo, Moree
Major Industries Serviced: General Freight, Tourism

Newell Highway at Grong Grong (Image © Rob Tilley)

The Newell Highway is the longest highway in NSW; it runs the length of the State from the Victorian border to Queensland. Over a 1,000 kms in length the Highway starts at Tocumwal in Victoria and finishes at Goondiwindi in Queensland.

The Newell is the main inland route for traffic flowing between Queensland and Victoria. Councils in the REROC region have reported that there is increasing use of the Olympic Highway-Goldfields Way route to access the Newell. It is believed that this reflects the quality of the Newell between Tocumwal and Narrandera; this route is slower than using the Hume Highway and then the Burley Griffin Way (meeting the Newell just east of Ardlethan) or the Hume Highway and then the Olympic Way and Goldfields Way (meeting the Newell at West Wyalong).

There is an issue with the Highway at Grong Grong where there is a right angle turn leading into the town. The RMS reports that there is a crash history in relation to that location due to sharpness of the turn.

The 2016 floods forced the closure of the Highway north of West Wyalong. The Highway was closed for 43 days, causing major disruption to freight transport.

The Highway need to be widened for AB-Triple Road Trains. This required a one metre centre line separation extension and additional passing lanes.

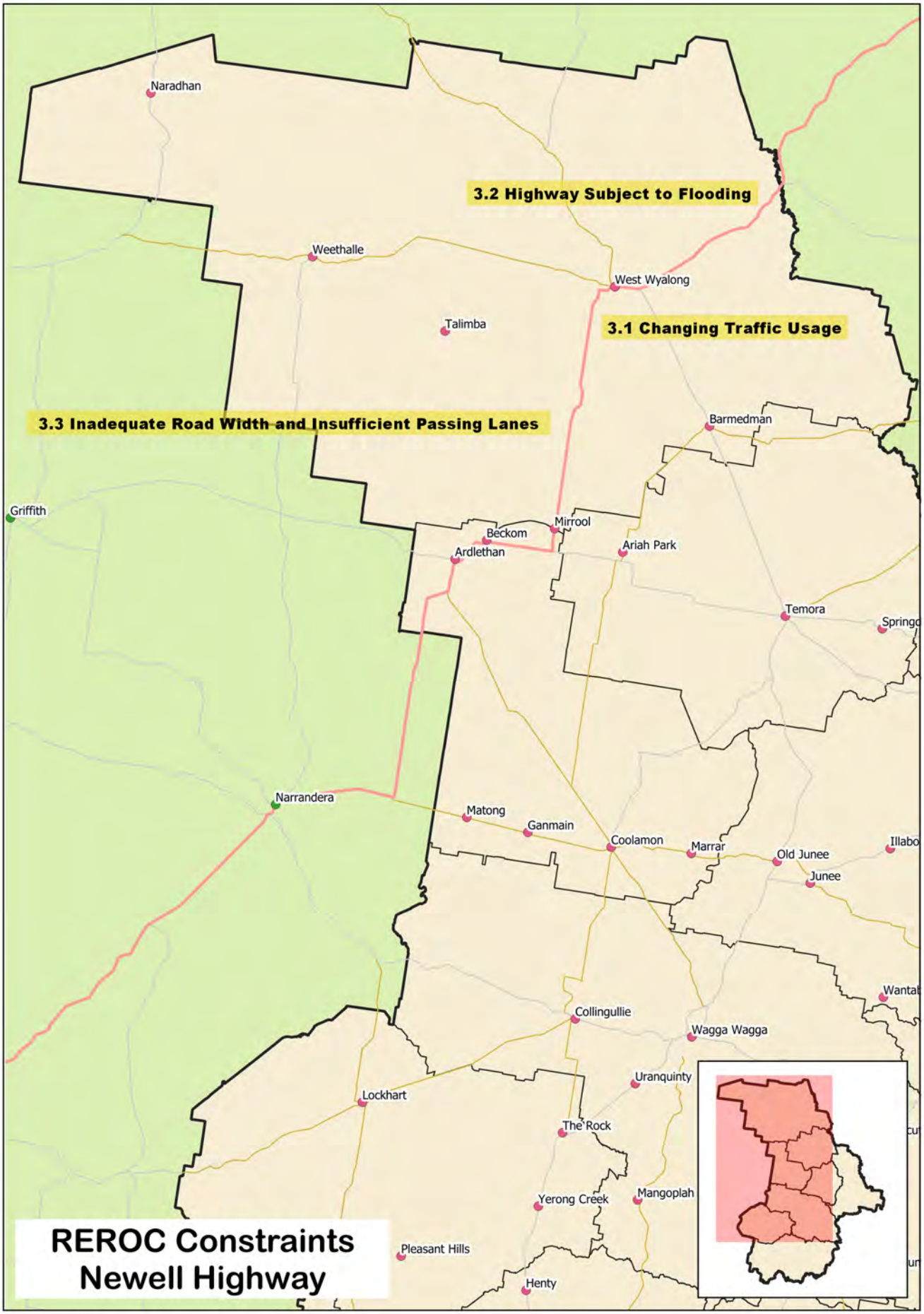
CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region:

3.1 *Changing Traffic Usage* – heavy vehicles are choosing the Hume Highway-Olympic Way-Goldfields Way route or the Hume Highway-Burley Griffin Way to link to the Newell significantly changing traffic patterns for those routes.

3.2 *Flooding north of West Wyalong* – the Highway is subject to major flooding north of West Wyalong

3.3 *Inadequate Road Width and Insufficient Passing Lanes* – the Highway needs to be widened to accommodate road trains and requires additional passing lanes.


Naradhan
3.2 Highway Subject to Flooding
Weethalle
West Wyalong
Talimba
3.1 Changing Traffic Usage
3.3 Inadequate Road Width and Insufficient Passing Lanes
Barmedman
Griffith
Mirrool
Beckom
Ardlethan
Ariah Park
Temora
Narrandera
Matong
Ganmain
Coolamon
Marrar
Old Junee
Junee
Collingullie
Wagga Wagga
Uranquinty
Lockhart
The Rock
Yerong Creek
Mangoplah
Pleasant Hills
Henty
REROC Constraints
Newell Highway

4. MID WESTERN HIGHWAY (NATIONAL ROUTE 24, ROUTE NUMBERS A41 AND B64)

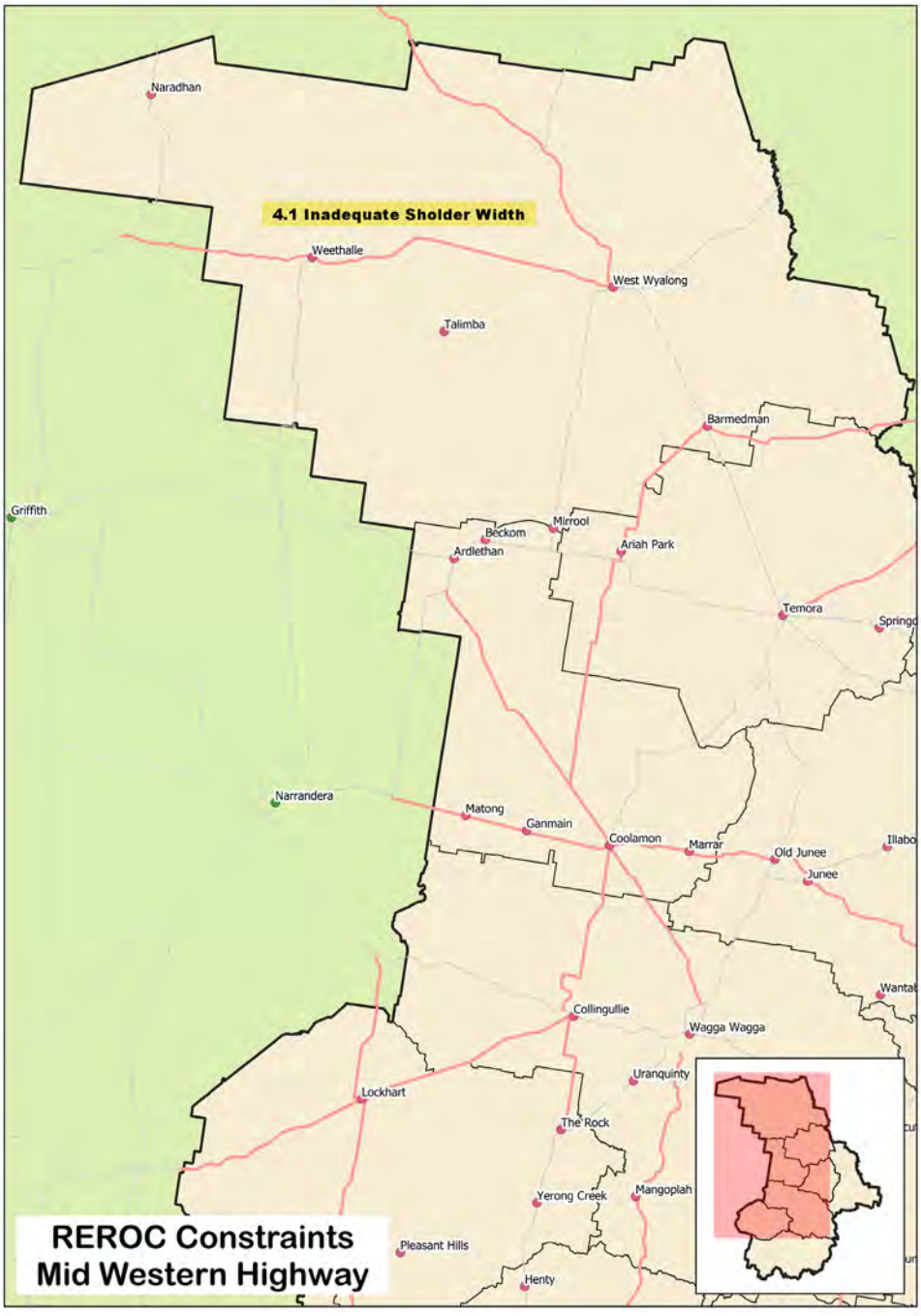
REROC LGAs: Bland
Major towns on route: Bathurst, Cowra, West Wyalong, Hay
Major Industries Serviced: Grain, General Freight, Tourism

The Mid-Western Highway is 522 kms in length running from Bathurst in the east to Hay in the West. It is the major east-west link for central NSW.

An impediment to increasing heavy vehicle usage is the narrowness of the Highway. There are long lengths of road where the shoulder width does not adequately support use by HML vehicles.

CONSTRAINT IDENTIFICATION:

4.1 Inadequate Shoulder Width – the Highway includes long lengths of road without sufficient shoulder width making it difficult for vehicles to share the road.



5. BURLEY GRIFFIN WAY (ROUTE NUMBER B94)

REROC LGAs: Cootamundra-Gundagai, Temora, Coolamon
Major towns on route: Young, Harden, Temora, Griffith
Major Industries Serviced: Grain, Livestock, Forestry/Timber, Wine, Horticulture, Tourism, alternative route between Melbourne and Brisbane via link to Newell Hwy.

The Burley Griffin Way is 278kms in length and runs from Hume Hwy at Bowning to the Kidman Way at Griffith. The road connects the Olympic Way with the Hume Highway and serves as the major route between Griffith, the Murrumbidgee Irrigation Area and Sydney. It also connects with the Newell Highway 48 kms west of Temora.

Councils expect that the Road will experience higher heavy vehicle traffic flows as a result of the Hume Highway bypass opening at Holbrook. The reason this is expected is because it may be quicker for heavy vehicles to travel down the Hume Highway and then turnoff at Bowning taking the Burley Griffin Way to link up to the Newell Highway, rather than travel the length of the Newell.

This road route has become the easiest and quickest way for the freight to move from the MIA to either the Newell or Hume Highways. The operation of a new Western Riverina Intermodal Freight Terminal at Wumbulgal in Leeton Shire and the proposed hub at Widgelli in Griffith City LGA to service the MIA may shift more freight from road to rail.

The roundabout located at the intersection with Hoskin's Street, Temora's main street, is a constraint to the movement of heavy vehicles. Drivers have difficulty negotiating the tight turn and consequently regularly ride up on the roundabout structure in order to get through.

There are also constraints caused by the large the Newell Highway and Wallendbeen that are not serviced by adequate culverts. The road has been closed a number of times as a result of heavy rains; water can rise to over half a metre, flooding the Burley Griffin Way and Old Wagga Road intersection. The worst sections of flooding, in 7-8 locations are west of Temora in the 50kms between Temora and the Newell Highway.

Constraints also exist at Wallendbeen where there is a roundabout and an overpass, both impeding the movement of oversize vehicles.

CONSTRAINT IDENTIFICATION:

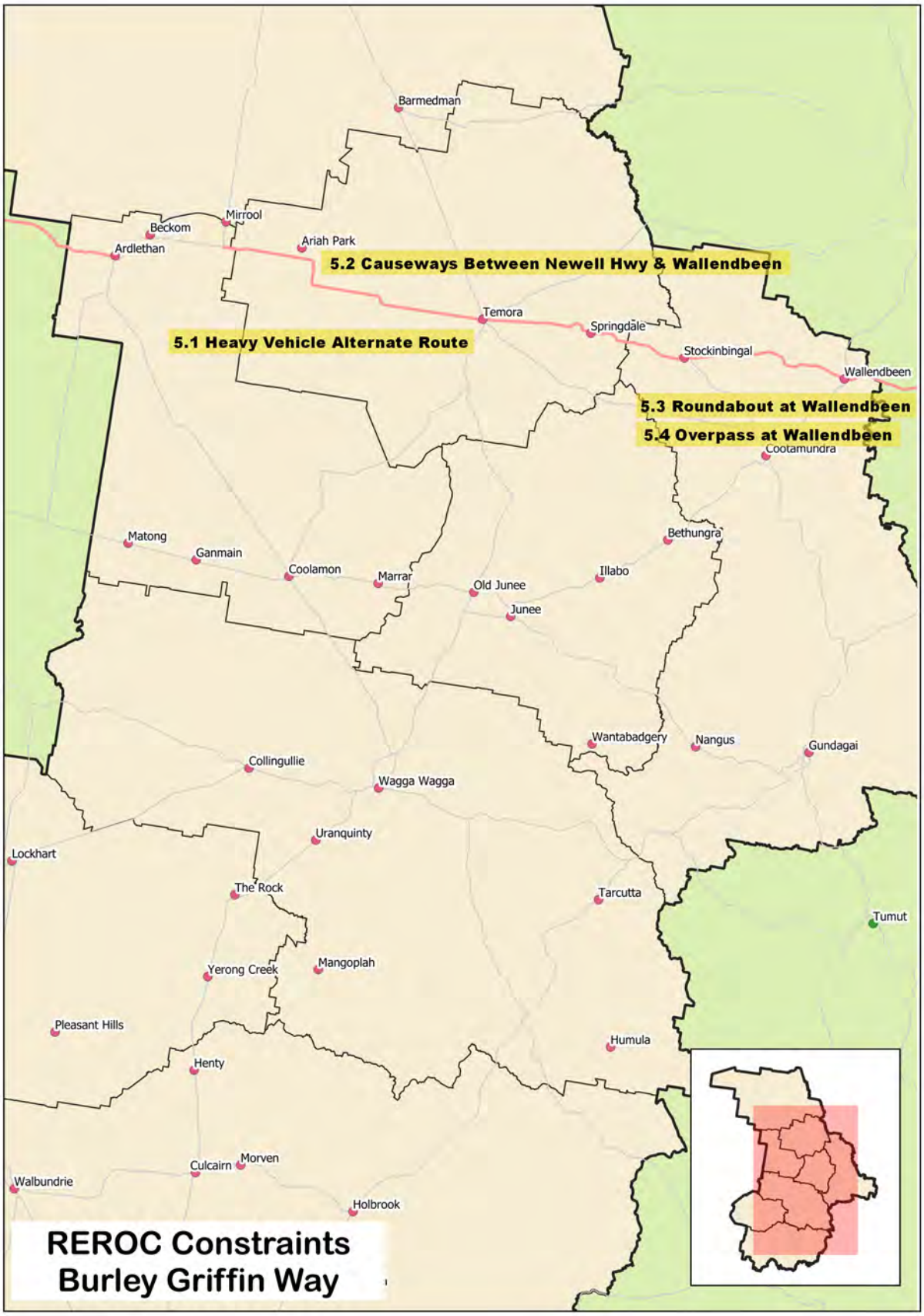
The following are identified as risks to the successful transport of freight from and through the region.

5.1 Heavy Vehicle Alternate Route is required to address the problem with the Roundabout in Hoskins Street and to remove heavy vehicle movements from the CBD area.

5.2 Causeways between Newell Highway and Wallendbeen – culvert sizes are too small to cope with large rain events, resulting in flooding events and road closures.

5.3 Roundabout at Wallendbeen – acts an am impediment to oversize vehicles that use the route.

5.4 Overpass at Wallendbeen – the restricted road width is an impediment to oversize vehicles.


Barmedman
Mirrool
Beckom
Ardlethan
Ariah Park
5.2 Causeways Between Newell Hwy & Wallendbeen
Temora
Springdale
5.1 Heavy Vehicle Alternate Route
Stockinbingal
Wallendbeen
5.3 Roundabout at Wallendbeen
5.4 Overpass at Wallendbeen
Cootamundra
Bethungra
Matong
Ganmain
Coolamon
Marrar
Illabo
Old Junee
Junee
Wantabadgery
Nangus
Gundagai
Collingullie
Wagga Wagga
Uranquinty
Lockhart
The Rock
Tarcutta
Tumut
Yerong Creek
Mangoplah
Pleasant Hills
Humula
Henty
Culcairn
Morven
Walbundrie
Holbrook
REROC Constraints
Burley Griffin Way

6. GOLDFIELDS WAY (MAIN ROAD 57, ROUTE NUMBER B85)

REROC LGAs: Junee, Temora, Bland
Major towns on route: Temora, West Wyalong
Major Industries Serviced: Grain, Livestock, Tourism, alternative route between Melbourne and Brisbane.

The Goldfields Way begins 8 kms west of Junee and terminates at West Wyalong, where it joins the Newell Highway. The Road links with the Olympic Highway to create an alternative route to the Newell Highway for those travelling between Brisbane and Melbourne. The Road is also used as a connection between the Bomen Industrial Area in Wagga Wagga and the Newell Highway.

Goldfields Way is Temora's Main Street

It is estimated that between 1500 and 2000 vehicles use the Road each day[12] . Goldfields Way runs through Temora's main street creating a negative impact on amenity particularly when stock trucks travel through the town. The street is difficult to navigate for heavy vehicles, slows their progress significantly and is made more dangerous because of the increased interface with pedestrians.

Recent A-Double Road Train movements have necessitated use of residential roads for transport through Temora, which further underscores the need for a Heavy Vehicle Alternative Route. It is anticipated that once the Riverina Intermodal Freight Hub (RIFH) becomes operational that A-Double Road Train movements will increase, creating potential safety issues arising from the interface between the residential and pedestrian use and heavy vehicle use.

Bland Shire Council believes that the section between Gidginbung (including Barmedman Main Street) and West Wyalong should not have been approved for Higher Mass Limit vehicles because the pavement is not designed to cater for them. In addition, much of the road is the same level as the area around it and consequently is prone to low level flooding, which impacts on the amount of road maintenance required. The road needs to be raised and the pavement strengthened.

Temora Shire has identified that the stacking distance between the Goldfields Way and the railway line is insufficient. There are 9 intersections along the road that have less than 40 metres stacking distance, with 8 of these having less than 30 metres. This is an insufficient distance for B-Doubles and road trains to operate safely and in accordance with NHVR network classifications guidelines.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

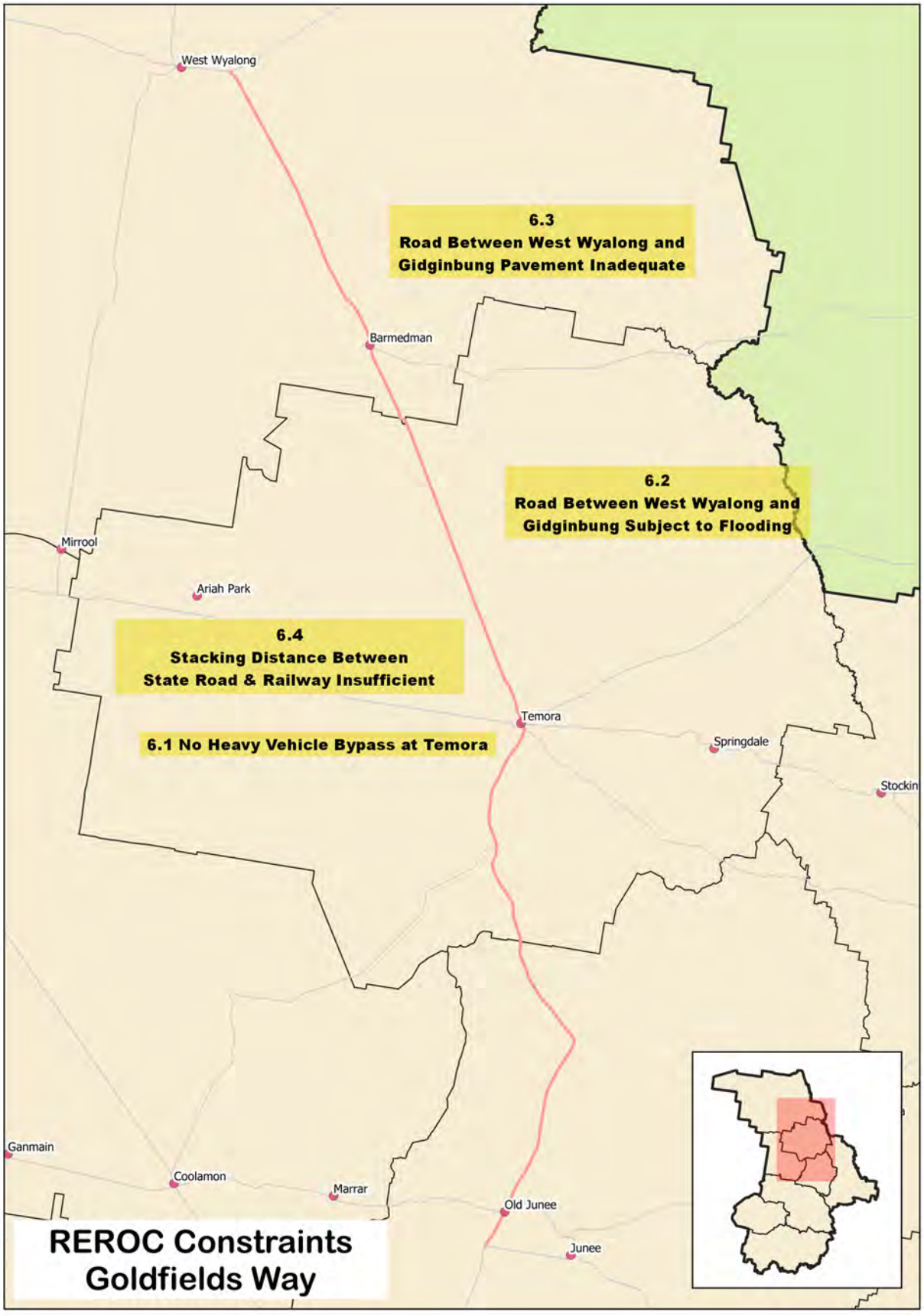
6.1 *No Heavy Vehicle Bypass at Temora* – all heavy vehicles using the Road must travel through the Temora CBD, creating significant inefficiencies for transport operators.

6.2 *Road between Gidginbung and West Wyalong is subject to flooding* – the road is the same level as the area around it and as a result is subject to flooding. The Road needs to be raised and the pavement strengthened.

6.3 *Road pavement between Gidginbung and West Wyalong is inadequate* - The Road pavement needs strengthening.

6.4 *Insufficient Stacking Distance* - There is insufficient stacking distance for B Doubles and Road Trains to operate safely and in accordance with NHVR network classification guidelines.

[11] www.ozroads.com.au/NSW/RouteNumbering/State%20Routes/85/sr85.htm


West Wyalong
6.3
Road Between West Wyalong and
Gidginbung Pavement Inadequate
Barmedman
6.2
Road Between West Wyalong and
Gidginbung Subject to Flooding
Mirrool
Ariah Park
6.4
Stacking Distance Between
State Road & Railway Insufficient
Temora
6.1 No Heavy Vehicle Bypass at Temora
Springdale
Stockin
Ganmain
Coolamon
Marrar
Old Junee
Junee
REROC Constraints
Goldfields Way

7. STURT HIGHWAY (HIGHWAY 20, ROUTE A20)

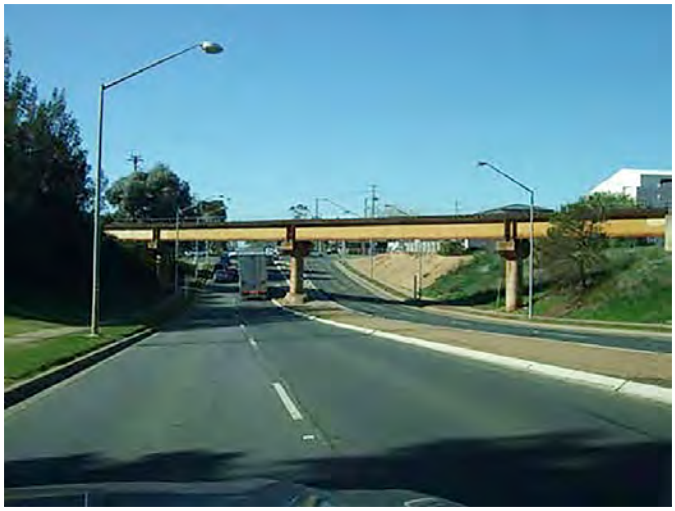
REROC LGAs on Route: Wagga Wagga
Major NSW towns on route: Wagga Wagga, Narrandera, Hay, Balranald
Major Industries Serviced: General Freight, Tourism

The Sturt Highway is the major east-west link through the Murray-Riverina region, it commences at the Hume Highway junction in the east, travelling west for 985 kms until it reaches Adelaide.

In Wagga Wagga the Highway runs along the southern edge of the CBD, meaning that heavy vehicles are interfacing with residential and local business traffic. The Highway passes under a rail-over-road bridge which limits the height of oversized vehicles that can traverse this section of the Road. A bypass option via the Eunony Bridge is not available because the Bridge has been assessed for HML vehicles and has been found to have structural integrity issues that prevent its use by any vehicle greater than GML.

A Discussion Paper on alternative route options for the City commissioned by the Committee4Wagga identified three possible bypass routes. Council is considering the Study's recommendations as well as other options for more efficient transport outcomes. The Committee has stated its preferred route is the Southern Route.
http://www.committee4wagga.com.au/wordpress/wp-content/uploads/2015/03/C4W_Alternate-Route-Report.pdf

Oversized load that had to be turned back at Wagga Wagga and return to South Australia because of height restrictions on the rail-over-road bridge



The rail-over-road bridge on the Sturt High way at Wagga Wagga

The Highway carries extremely heavy traffic both for general freight and tourism. A growing issue is the use of Wagga Wagga as an interchange point for heavy vehicle drivers. Council is finding increasing occurrences of loads being decoupled and parked in side streets awaiting interchange with another vehicle. This is creating problems in some areas of the City.

CONSTRAINT IDENTIFICATION:
The following issues have been identified as risks to the successful transport of freight from and through the region:

7.1 *No Alternative Route at Wagga Wagga* – means that heavy vehicles travelling east-west, must travel through part of the Wagga Wagga CBD, interacting with local traffic, pedestrians and two school zones.

7.2 *Truck/trailer Interchanges at Wagga Wagga* – increasing practice of decoupling trailers on side roads to wait for an interchange is causing problems in the City, there are no specialist parking bays currently available.

7.3 *Height of Rail over Road Bridge* - the permissible height stops oversized loads from passing under the bridge.


Narrandera
Matong
Ganmain
Coolamon
Marrar
Old Junee
Junee
Illabo
Bethungra
7.1 No Bypass at Wagga Wagga
7.2 Truck / Trailer Interchange at Wagga Wagga
7.3 Height of the Rail Over Road Bridge
Wantabadgery
Nangus
Collingullie
Wagga Wagga
Uranquinty
Lockhart
The Rock
Tarcutta
Yerong Creek
Mangoplah
Pleasant Hills
Humula
Henty
Culcairn
Morven
Walbundrie
Holbrook
Walla Walla
Brocklesby
Burrumbuttock
Gerogery
Woomargama
Jindera
Albury
REROC Constraints
Sturt Highway

8. WAGGA TO TUMBARUMBA (MR284, STATE ROAD/MR384, REGIONAL ROAD)

REROC LGAs: Wagga Wagga Greater Hume
Major towns on route: Wagga Wagga, Tumbarumba
Major Industries Serviced: Forestry/Timber, General Agriculture, Tourism

Known as the Tumbarumba Road in Wagga and Greater Hume LGAs and as the Wagga Road in the Snowy Valleys LGA, the road runs from the Sturt Highway, 16 kms east of Wagga Wagga through Ladysmith across the Hume Highway to Tumbarumba, it is 95kms long. The Road travels through primarily agricultural land and there is some dairying occurring in the Ladysmith area.

The road is burdened by two classifications, in Greater Hume and Snowy Valley LGAs it is a State Road, however in the Wagga Wagga LGA it is a Regional Road. This makes planning and funding improvements challenging.

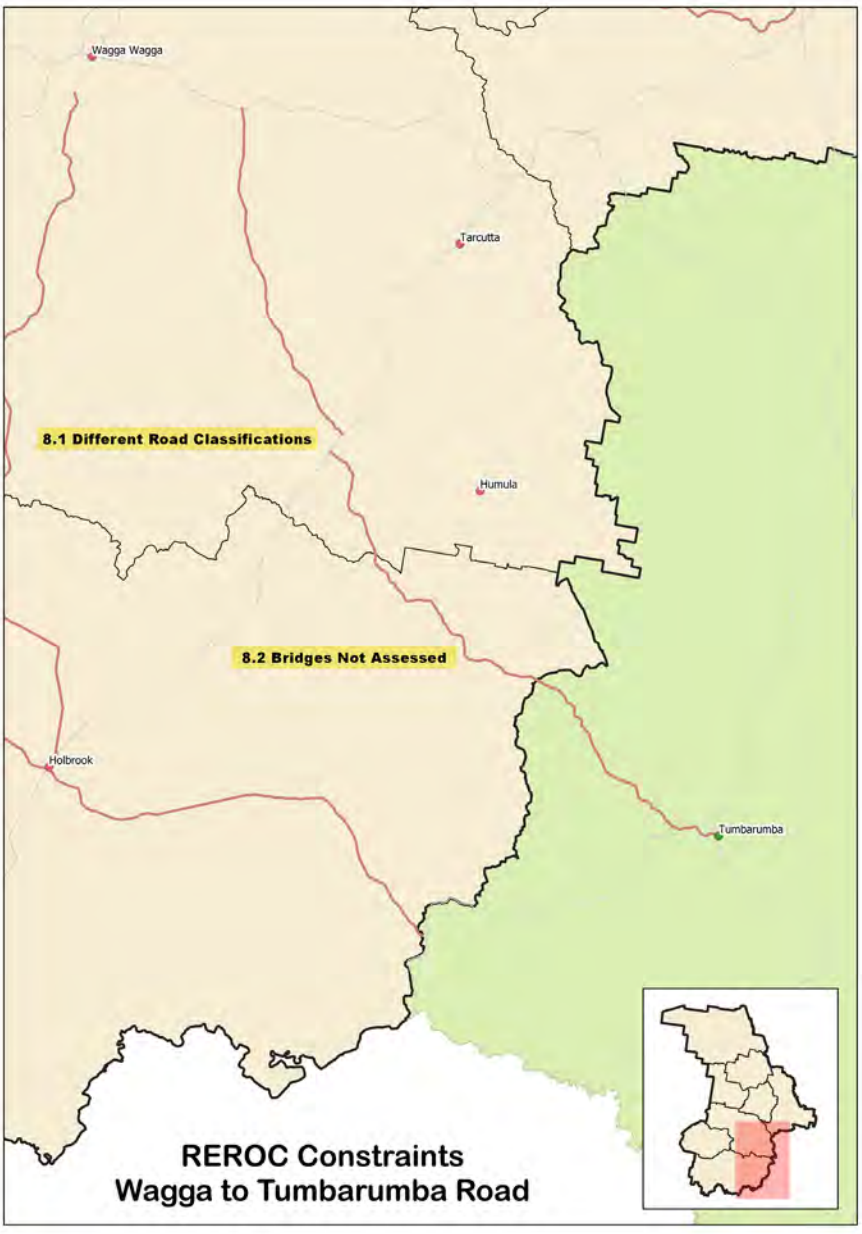
In 2008 an interchange was constructed at the point where the Road crosses the Hume Highway. This major improvement occurred as a result of the duplication of the Hume Highway.

The road is a significant route for the movement of timber products, the section of the Road from Tumbarumba to the Hume highway is used heavily by timber trucks.

CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

8.1 *Different Road classifications* - The Road carries a number of different classifications which restricts access for heavy vehicles. It is a Regional Road in Wagga Wagga and a State Road in Greater Hume and Snowy Valleys LGAs.

8.2 *Bridges not Assessed* - A number of bridges along the route have not been assessed and therefore are not approved for HML usage.



A new interchange was constructed on the Tumbarumba Road as part of the Hume Highway upgrade (Photo: jacksonteece.com)

REGIONAL ROADS

9. CANOLA WAY (MR243)

REROC LGAs: Junee, Coolamon, Cootamundra-Gundagai
Major towns on route: Junee, Coolamon
Major Industries Serviced: General Agriculture, Grain

This road is 148 kms long, running from the Hume Highway at Gundagai to the Newell Highway at Grong Grong. It travels through the centre of the Junee Township, creating issues because of the interface with pedestrians and providing difficulties for heavy vehicles that must contend with some very tight turns.

The road has the potential to link the Hume and Newell Highways however there is approximately 20 kms of road between Nangus and Gundagai that is not approved for B Doubles. Road trains are not able to access to Graincorp terminal at Junee because the HL Robinson Bridge has not been assessed.

CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

9.1 *Restricted B Double Access* – while the road connects with the Newell Highway, B doubles cannot reach the Hume Highway because there is no access between Nangus and Gundagai.

9.2 *Tight Movement in Junee Township* – tight turning movements in town streets, including four 90 degree turns and one roundabout make travel through Junee Township by heavy vehicles difficult.

9.3 *Jubilee Bridge Not Assessed* – Bridge not assessed for HML use

10. WAGGA TO COOLAMON (AADT1730) TO ARDLETHAN (AADT480, MR240)

REROC LGAs: Wagga Wagga, Coolamon, Temora
Major towns on route: Wagga, Coolamon, Ardlethan
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain, Tourism, Domestic Light Vehicles

This road is primarily used for agricultural purposes, but could potentially link the Bomen Industrial Area at Wagga Wagga with the Newell Highway. Constraints previously identified in relation to assessments of bridges over Houghligan's Creek have been addressed.

The route is divided at Coolamon by a railway line; the single rail crossing divides the town in half at Cowabbie Street. If the crossing is closed for any reason the nearest alternative crossing is 5 kms away. This restricts domestic, freight and emergency services access.

CONSTRAINT IDENTIFICATION:

10.1 *Coolamon Main Street divided by railway line* – if the crossing is closed nearest alternative crossing is 5kms away

11. MARY GILMORE WAY (AADT300, MR398)

REROC LGAs: Temora, Bland, Coolamon
Major towns on route: Ariah Park, Barmedman
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

This route is normally used for standard heavy vehicle traffic. It is also an alternative route for HML vehicles leaving the Newell Highway to go to West Wyalong or to access the Burley Griffin Way.

The Road has deficient width.10.5kms of a built-up road has shoulder width less than 1.0m, in addition steep batters from shoulder to table drain is a road safety issue right through the MGW in Coolamon Temora and Bland LGAs. With little or no shoulder available, driver response time is greatly reduced creating a safety hazard, and there is some light vehicle crash history to support this.

CONSTRAINT IDENTIFICATION:

11.1 *Deficient road width* – shoulder width is less that 1.0m and steep batters are creating a safety hazard for drivers

12. BOOMERANG WAY (COLLINGULLIE TO JERILDERIE, MR59)

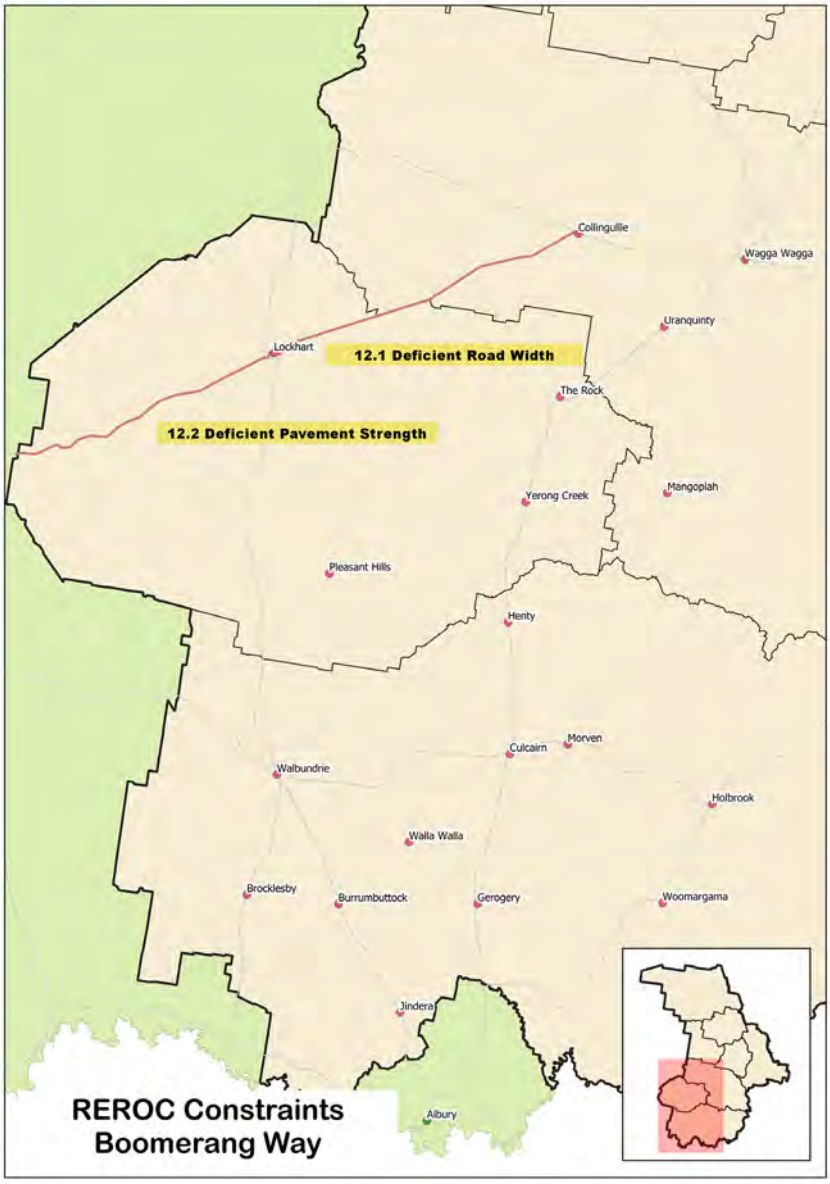
REROC LGAs: Wagga Wagga, Lockhart
Major towns on route: Collingullie, Lockhart, Urana, Jerilderie
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

This road is 142kms long, running from Collingullie to Jerilderie, where it meets the Newell Highway. The road provides connectivity between the eastern Riverina and central Victoria.

Funding has been received to address the Road's constraints with works to commence in 2019-20.

CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

12.1 *Deficient Road Width* – the route is too narrow for HML/large vehicles
12.2 *Pavement Strength is Deficient* – pavement strength does not meet the needs of CML/large vehicles.



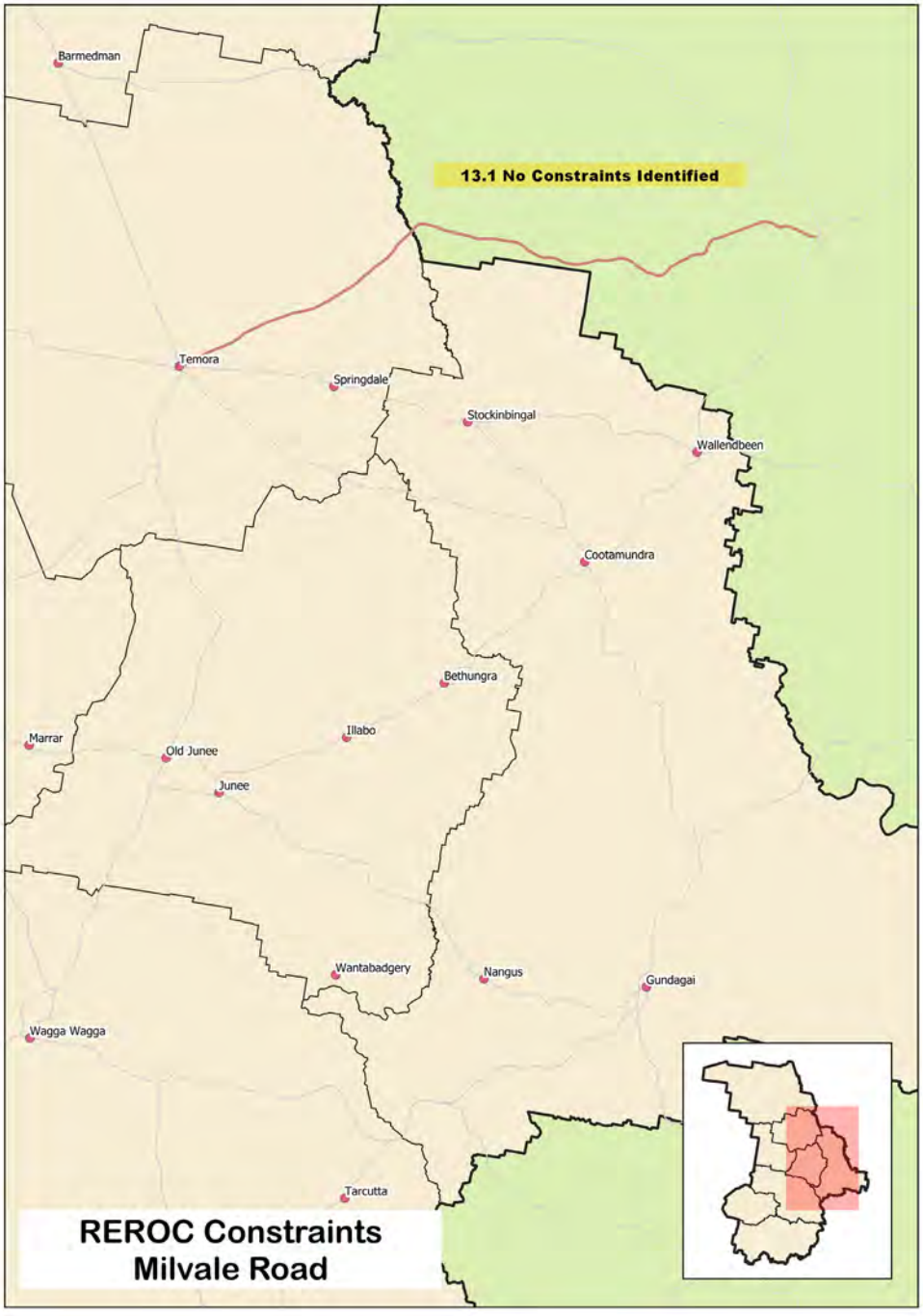
Boomerang Way is deficient in pavement width and strength

13. MILVALE ROAD (MR241)

REROC LGAs: Temora
Major towns on route: Temora, Young
Major Industries Serviced: General Freight, Tourism

This road is the major access between Temora and Young. The major issue for the route was the Grogan Bridge on the boundary of Temora and Young Shires. However a $1.5million upgrade of the bridge was completed and opened in March 2015 which has resolved the problem.

CONSTRAINT IDENTIFICATION:
There are no constraints identified on this route.



14. COOTAMUNDRA TO STOCKINBINGAL ROAD (MR235)

REROC LGAs: Cootamundra-Gundagai
Major towns on route: Cootamundra
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

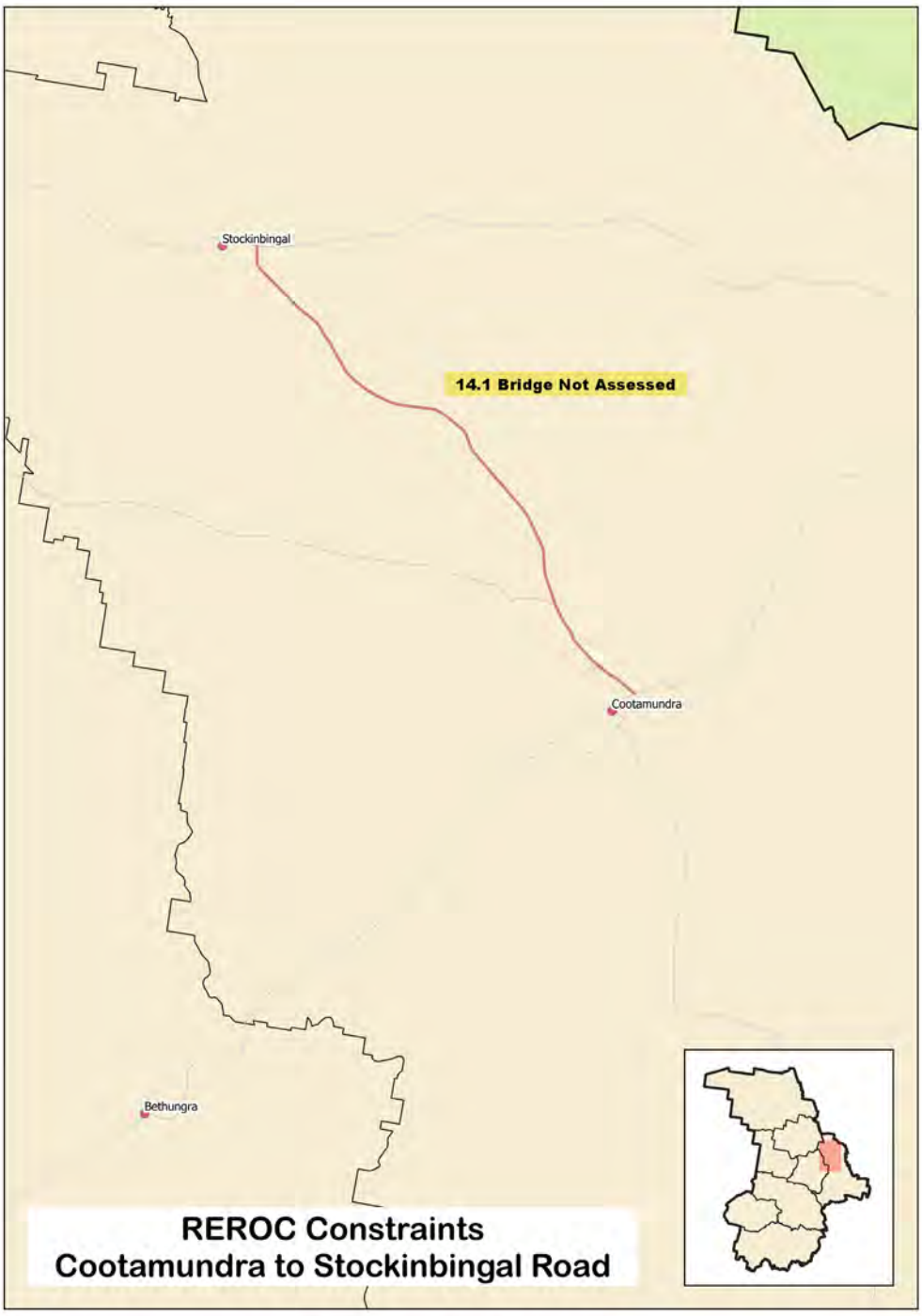
This road takes heavy vehicles from the Coolac-Cootamundra Road (MR87) through to join the Burley Griffin Way.

It is anticipated that the Road is likely to experience higher heavy vehicle traffic flows as a result of the opening of the Hume Highway bypass at Holbrook. The reason this is expected is because it may be quicker for heavy vehicles to use the Hume, turnoff at Coolac onto MR87 to Cootamundra, then take MR235 and the Burley Griffin Way to link up to the Newell Highway, rather than travel the length of the Newell Highway.

The pavement and alignment of the Road may not be suitable or meet the demands of the anticipated increased traffic movements.

CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

14.1 ***Bridge not Assessed*** – the bridge at Nioka is not assessed for HML vehicles.



15. HOLBROOK – WAGGA WAGGA ROAD (HOLBROOK ROAD, MR211)

REROC LGAs: Wagga Wagga, Greater Hume
Major towns on route: Wagga Wagga, Holbrook
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

This road is the major link between Wagga Wagga and Holbrook. It is also an alternative access route from Wagga Wagga to the Hume Highway for traffic travelling from the eastern Riverina to Melbourne. In addition, the route can provide a time advantage for traffic that is travelling between Melbourne and Brisbane. Time can be saved by using the Hume Highway from Melbourne to Holbrook and then using this route, the Olympic Way and then Goldfields Way to Wyalong as opposed to using the Newell Hwy, which is mainly single lane, from Seymour through to Narrandera and then to Wyalong.

There are a number of risks which have resulted in restrictions being imposed on its use by B-doubles.

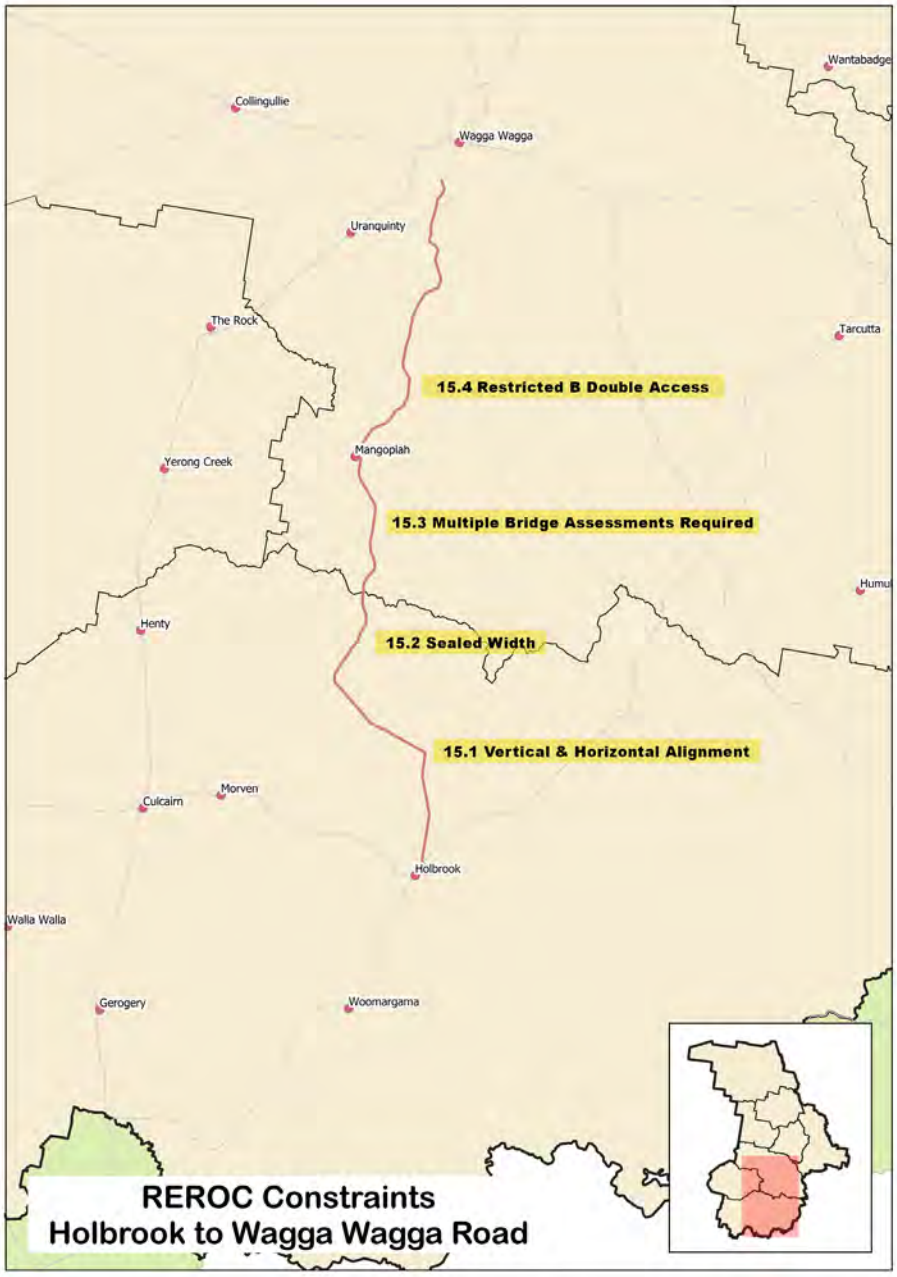
CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

15.1 *Vertical and Horizontal Alignment* – there is poor alignment in a number of locations. This is because the road follows the historic route which evolved from the period of first settlement in the Region.

15.2 S*ealed width* – some parts of the road have inadequate width for large vehicles. The seal width in Wagga Wagga LGA is 6.9 to 7.2 metres with unsealed shoulders of 0.5 to 1.5 metres. Sealed width is also inadequate in Greater Hume Shire.

15.3 *Multiple Bridge Assessments Required* – with the exception of Greater Hume LGA, there are multiple bridges along the route that have not been assessed as suitable for use by HML vehicles.

15.4 *Restricted B Double Access* – in the Wagga Wagga LGA section has restricted access for B doubles due to poor horizontal and vertical alignment and narrow seal width.



16. COOLAC TO COOTAMUNDRA (MR87), MUTTAMA ROAD

REROC LGAs: Cootamundra-Gundagai
Major towns on route: Cootamundra
Major Industries Serviced: Forestry/Timber, General Agriculture, Grain

It is anticipated that the Road will experience higher heavy vehicle traffic flows following the opening of the Hume Highway bypass at Holbrook. The reason this is expected is because it may be quicker for heavy vehicles to use the Hume Highway, turnoff at Coolac, then take MR 235 and the Burley Griffin Way to link up to the Newell Highway, rather than travel the length of the Newell Highway. This is attracting a growing number of A Double permit applications.

Cootamundra-Gundagai Council has in the past received an application from the NHVR for A Double access. The application was made because of restrictions on Hume Highway at Sheahan's Bridge at Gundagai. The road is not suitable for A Doubles and consequently the application was refused however the request could indicate a trend in relation to the use of HML vehicles.

The Road is also seeing increased use by logging trucks taking raw product from the Bathurst/ Oberon region to Visy Pulp and Paper at Tumut.

The Cullinga Creek crossing approximately 15 km from Cootamundra is a low level causeway that floods and causes the road to be closed for extended periods. Numerous incidents and a fatality some 6 years ago prompted Council to install a flood warning device on the crossing which consisted of a water level monitor and solar powered flashing lights on approach signage to warn motorists of the water over the road. Council will be endeavouring over time to replace the causeway with box culverts or alternatively a bridge structure.

Cullinga Causeway in Cootamundra Shire requires an upgrade to reduce incidents of flooding

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

16.1 ***HML Route Approval*** – has been granted within the former Cootamundra Shire boundary but not for the rest of the route.

16.2 ***Cullinga Creek Causeway in Cootamundra Shire*** - requires upgrading to reduce the danger and inconvenience of flooding.

16.3 ***Load Limits on Bridges*** – two bridges on the Muttama Rd do not meet load limit requirements and need to be upgraded


Cootamundra
16.2 Cullinga Creek Causeway Flooding
Bethungra
16.1 HML Route Approval
Nangus
Gundagai
REROC Constraints
Coolac to Cootamundra Road

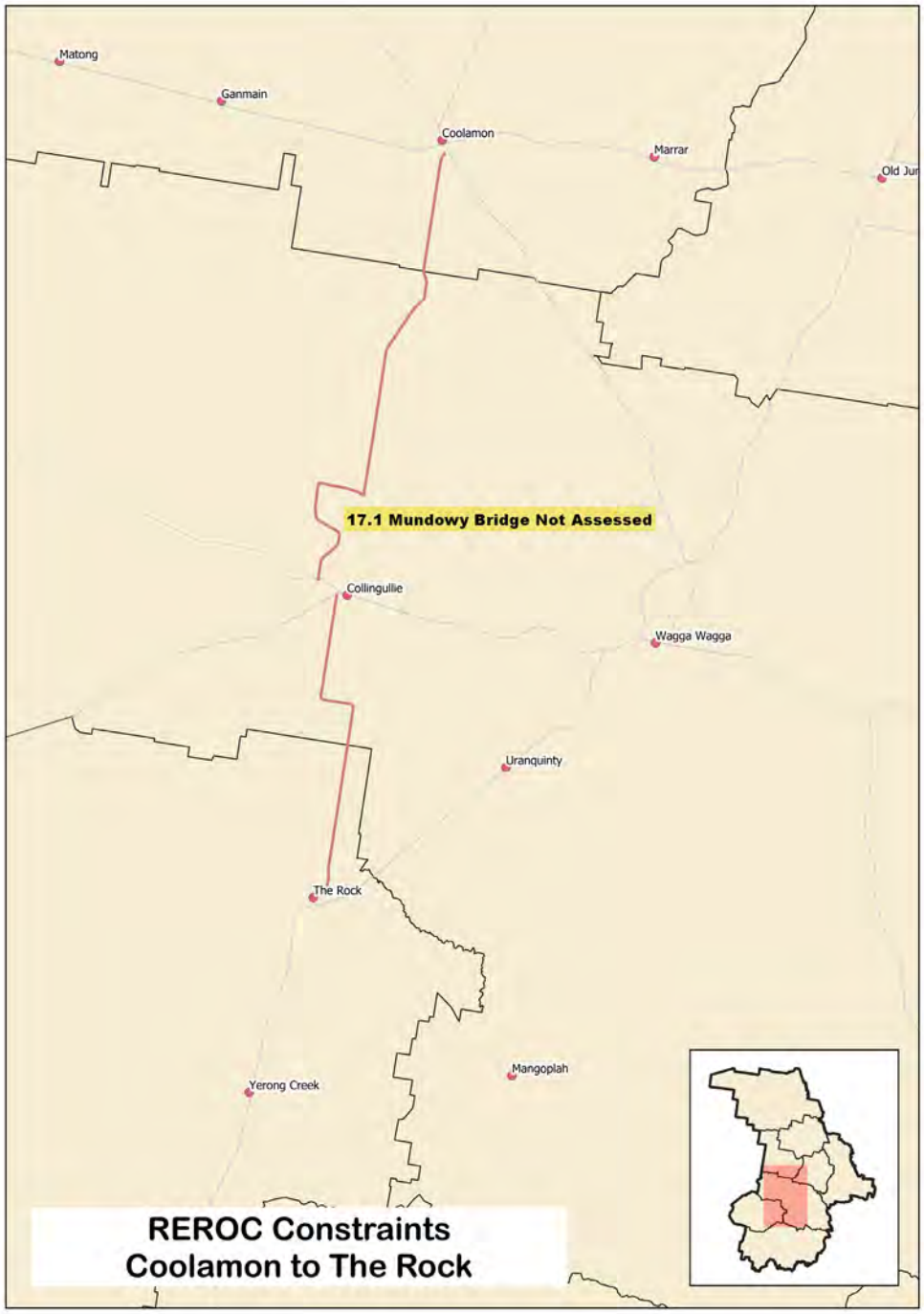
17. COOLAMON TO THE ROCK (MR543)

REROC LGAs: Coolamon, Wagga Wagga, Lockhart
Major towns on route: Coolamon, Collingullie, The Rock
Major Industries Serviced: General Agriculture, Grain

This route is primarily used for general agriculture traffic. The route is also an approved B double route in the event of an emergency, however there is a bridge on the route that has not been assessed as suitable for B Double usage.

CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

17.1 *Mundowy Bridge not Assessed* – the bridge which spans the Murrumbidgee River is not assessed or approved for B Double access.



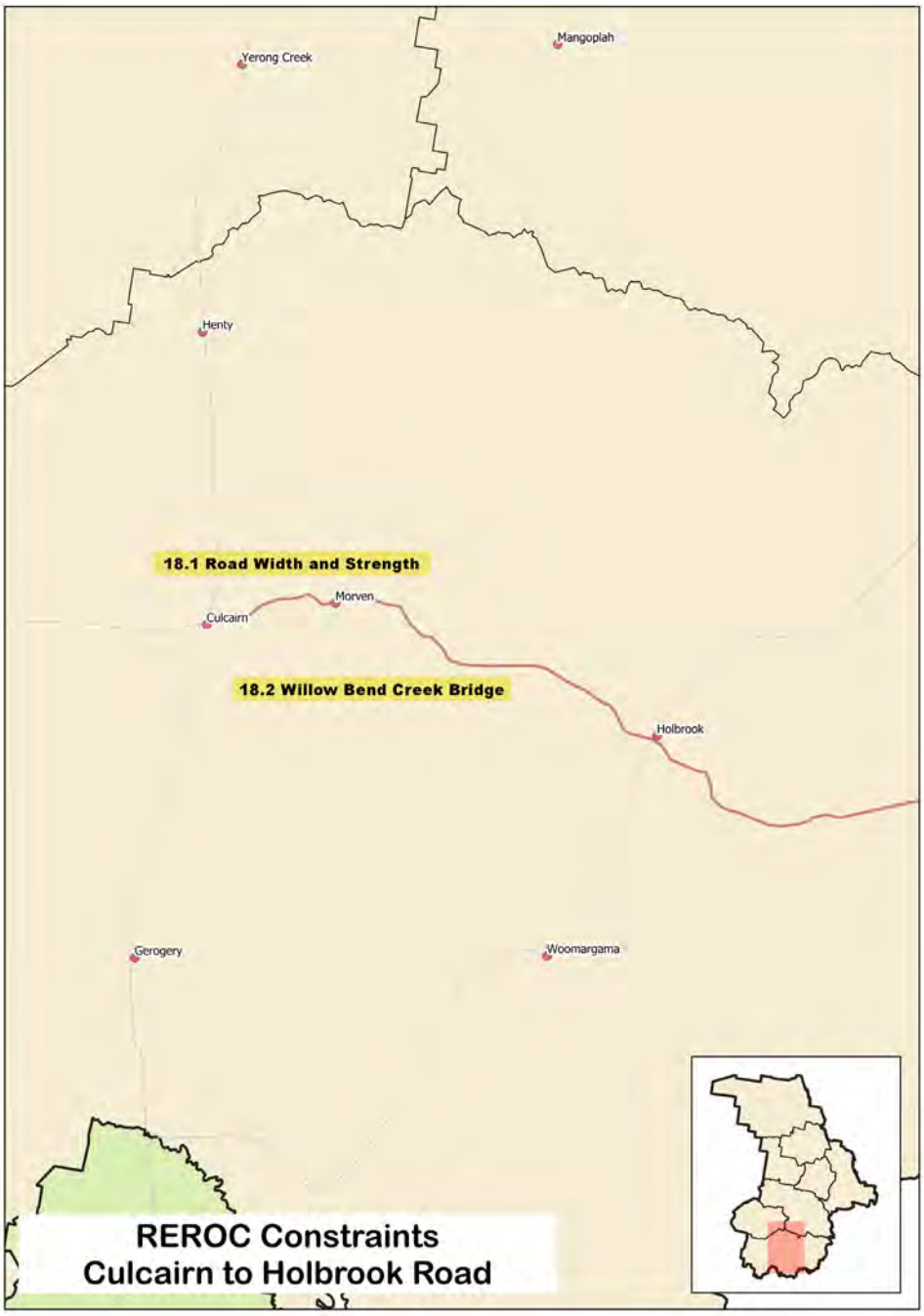
18. CULCAIRN - HOLBROOK ROAD (MR331)

REROC LGAs: Greater Hume
Major towns on route: Culcairn, Holbrook
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

This road runs east to west and is the major link between Holbrook and Culcairn and between the Hume and Olympic Highways. It is also used as a detour when the Olympic and Hume are closed during emergencies.

In 2010 the bridge over the Billabong Creek on the route was replaced and the approaches widened which addressed significant problems that HML vehicles were encountering at that location. However, about 5 kilometres of road between Morven and Holbrook is narrow, has bends and is hilly making it unsuitable for HML traffic. This section of the road forms part of an RMS designated detour. Shoulders need to be widened by at least 1.5 metres and the road reconstructed to improve pavement strength to better accommodate traffic, including HML.

The bridge of Willow Bend Creek is also inadequate in width for heavy vehicles.



CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

18.1 ***Road width and Strength*** – About 5 kms of road between Morven and Holbrook and 1.5kms between Morven and Culcairn requires reconstruction and widening by 1.5 metres and pavement strengthening.

18.2 ***Bridge widening*** - The Willow Bend Creek Bridge requires widening to improve safety.

19. WEST WYALONG-CONDOBOLIN ROAD (MR57)

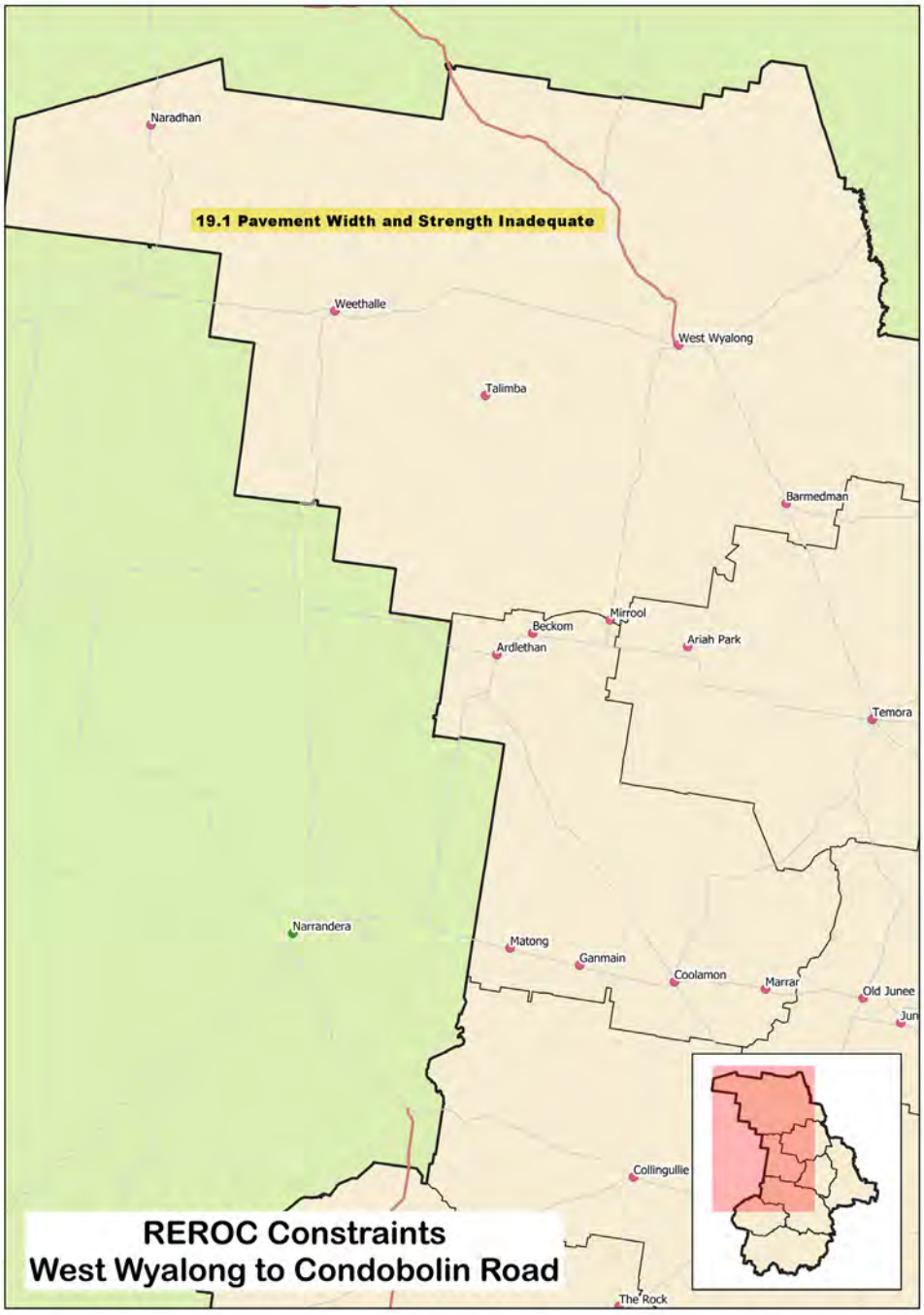
REROC LGAs: Bland
Major NSW towns on route:
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

The West Wyalong-Condobolin Road….

Road pavement width and strength is deficient it is not meeting the requirementsfor current usage and does not meet the requirements for HML and A-B Triples use.

CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

19.1 *Pavement Inadequate* – road pavement width and strength is deficient and does not meet requirements for HML and Road Train vehicles.



20. KYWONG – HOWLONG ROAD (MR370)

REROC LGA: Greater Hume
Major towns on route: Brocklesby
Major Industries Serviced: Livestock, Grain, Tourism

This road is used as an alternative route between the Hume and Newell Highways, this section of the road is located between Howlong and Walbundrie.

Inadequate pavement width and strength restricts its use and causes safety issues. However upgrading is continuing under the repair program for regional roads with approximately 12 kms still to be completed.

CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

20.1 *Pavement width and strength* – are inadequate to meet the demands of heavy vehicles for approximately 30kms in length within Greater Hume Shire.

21. JINGELLIC ROAD (MR331

REROC LGA: Greater Hume
Major towns on route: Holbrook
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain, Forestry/Timber

This road is the major link between Holbrook and Jingellic; however the Road has sections that have inadequate seal width and pavement strength. Currently five bridges are too narrow and not suitable for HML with four requiring replacement and one requiring widening.

In 2016 the steep and narrow section of the Road known as "Yarara Gap", pictured right was reconstructed allowing full access to B-Doubles across its entire length.

The Road is 45.2kms in length, with 37.9kms of that length having inadequate width and pavement strength for heavy vehicles of 11 kms is in poor conditions.

CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

21.1 *Road width and Pavement strength* – 37.9 kms of road is inadequate in width and strength for heavy vehicles

24.1 *Bridge width and Strength* – Five bridges are too narrow and not suitable for HML

Photo: Marg Killalea

LOCAL ROADS

22. ARDLETHAN TOWNSHIP, COOLAMON SHIRE

Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

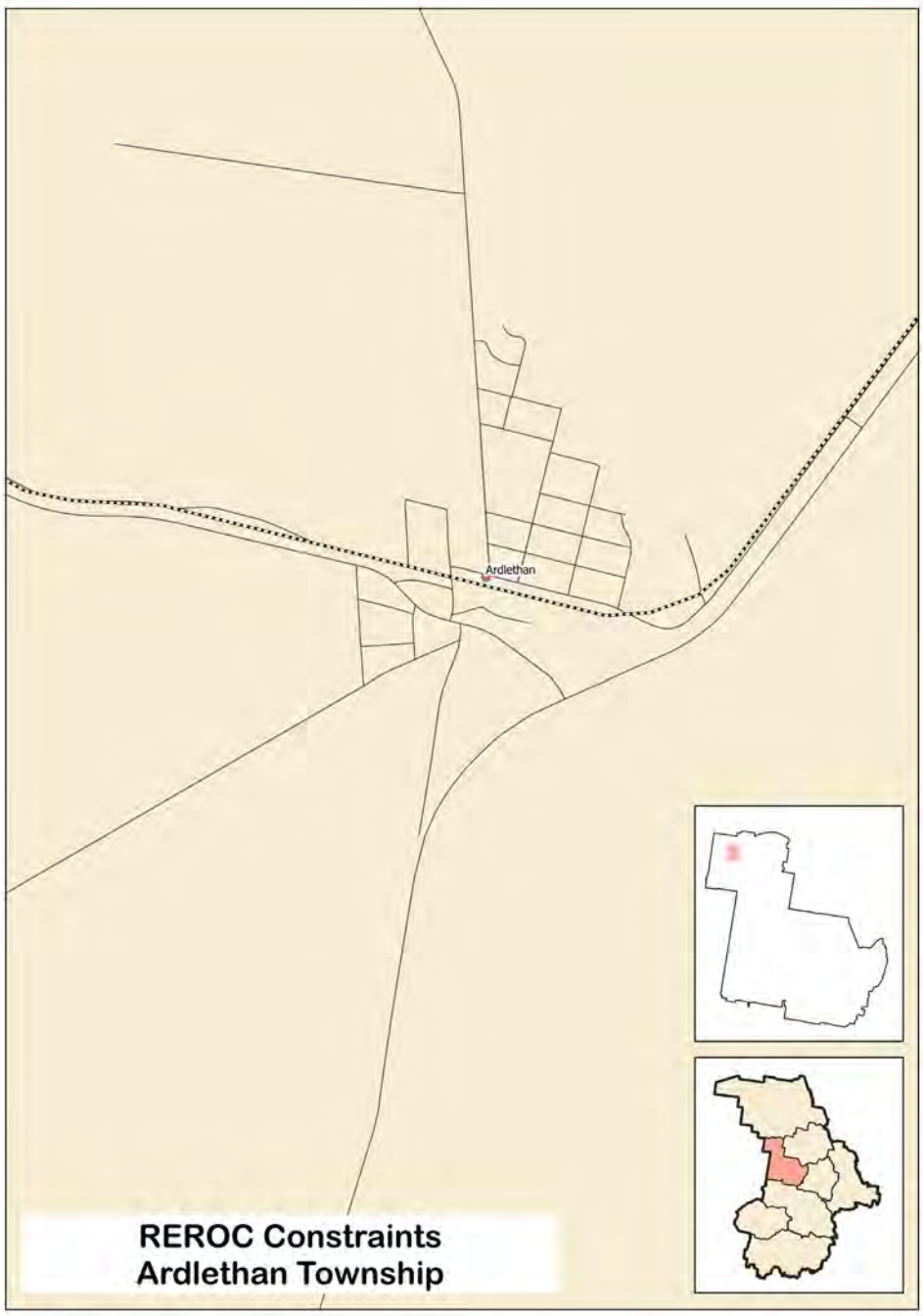
The closure of the Talimba branch line has resulted in the desire for road trains to transport grain to the Ardlethan silos. Intersection geometry within the township is not currently suitable for road trains or HML vehicles. A grant has been received from Fixing Country Roads to address the problem however works cannot begin until a land acquisition is finalised.

Ardlethan also provides access to the Burley Griffin Way for B Doubles.

CONSTRAINT IDENTIFICATION:

22.1 ***Road alignment*** – at Ardlethan is not suitable for heavy vehicles accessing the grain receival point.

Road geometry through Ardlethan is unsuitable and does not cater for road train turning circle requirements.



23. COMBANING ROAD, TEMORA SHIRE AND JUNEE SHIRE

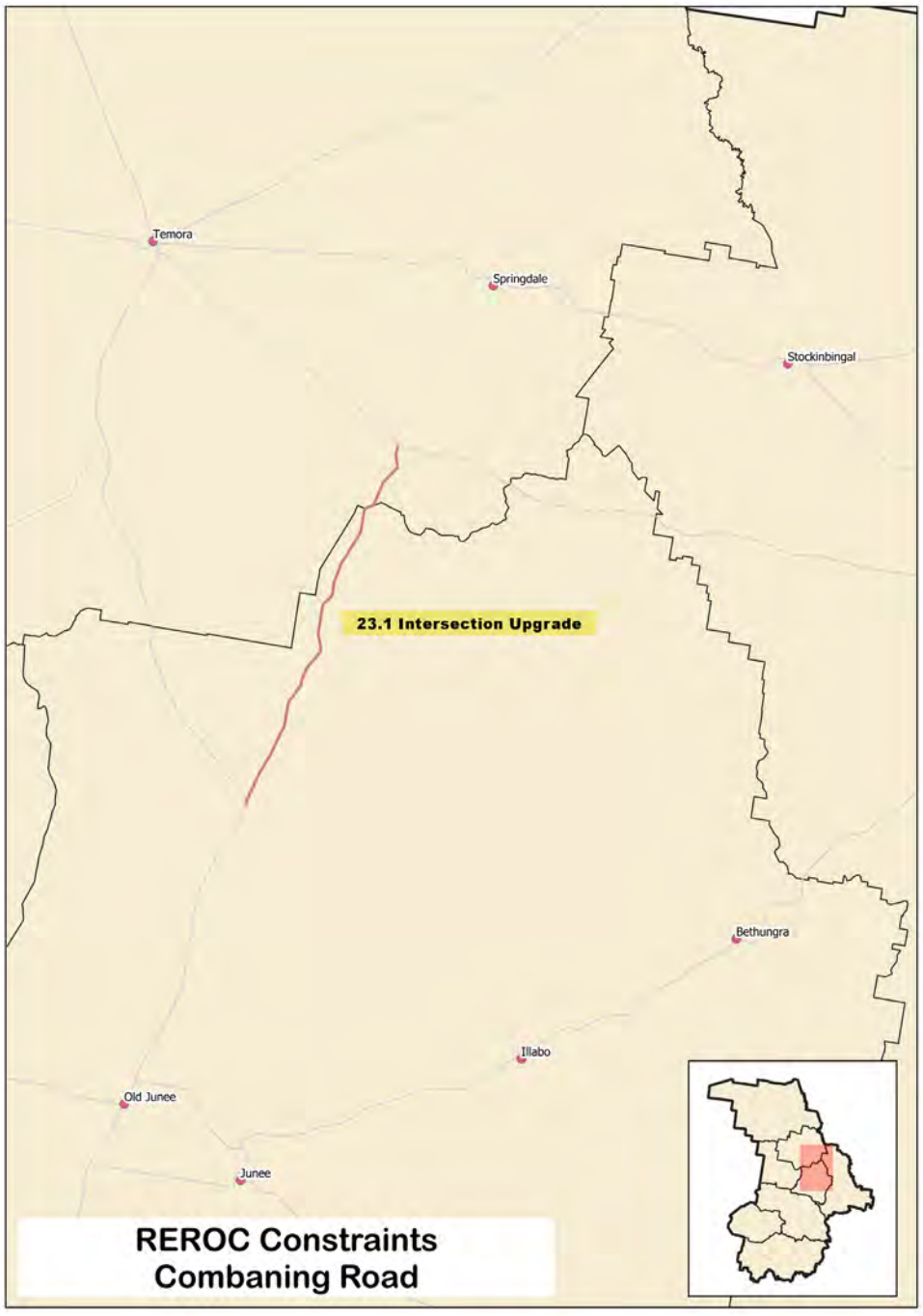
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

This route runs through Temora and Junee Shires and is primarily used for general freight and agricultural use. It could also form part of the route for the transport of livestock from Tey's Jindalee Feedlot located 20kms east of Temora to Tey's Abattoir at Bomen, Wagga Wagga, however the imposition of a 10 tonne limit on the road in the Junee Shire has meant that the Jindalee livestock transport can no longer use the route. This has forced the transport from Jindalee to go through the Temora Township and down the Goldfields Way and then the Olympic Way to access Bomen. It is estimated that the detour adds approximately 20kms to the journey, and also negatively impacts the Temora main street.

This Road received Fixing Country Roads funding in early 2015 which will upgrade the road leading to a removal of the 10 tonne limit and opening up the route to heavy vehicle traffic.

CONSTRAINT IDENTIFICATION:

23.1 *Intersection Upgrade* - Intersection with Old Cootamundra Rd requires standardisation



24. EUNONY BRIDGE ROAD – BYRNES ROAD, WAGGA WAGGA CITY

Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain, Pulp and Paper

The Bridge, built in the mid-1960s, together with Byrnes Road (part of which is in Wagga Wagga City's LGA and part in Junee LGA) forms the major access route to the Bomen Industrial Area where Wagga Wagga City Council has proposed the development of an intermodal hub known as the Riverina Inland Freight and Logistics Hub (RIFLH) . This Road will provide the most direct route to RIFLH from the east of the City and therefore the Road needs to accommodate HML vehicles. It is also the route which is used to access the Livestock Marketing centre. The Centre operated by Wagga Wagga City Council is the biggest sheep selling centre in the southern hemisphere, selling over a million sheep each year.

The Road is also a major access route to the Qube intermodal facility at Harefield, which is currently handling all Visy Pulp and Paper's products for export.
The Bridge forms part of the Sturt Highway diversion through Wagga Wagga, most importantly providing an alternative route for high vehicles that are unable to pass under the Rail over Road bridge located on the corner of the Highway and Lake Albert Road at the edge of the CBD. The route carries about 4,000 vehicles per day with a 19% concentration of heavy vehicles.

The Bridge can take all configurations of GML vehicles but is not suitable for CML or HML vehicles.

Eunony Bridge was assessed for use by HML vehicles. The assessment revealed deficiencies that have resulted in some urgent work being undertaken to maintain the Bridge. At the present time vehicle weights on the Bridge are restricted to general mass limits (GML) meaning that there is no high vehicle by-pass on the Sturt Highway at Wagga Wagga for vehicles that are in the CML or HML categories.

This situation has already proven to be a problem with at least one very large load having been turned around and returned to Adelaide where it was sent to Sydney by ship. Visy is exploring the opportunity to use A-Doubles on this route however until the Bridge is approved for HML this mode of transport is not an option for the Company.

Currently HML vehicles wanting to access Bomen or Harefield from the east or west of Wagga Wagga must use the Sturt Highway and then travel over the Gobbagumbalin Bridge; this is increasing transport costs for freight that originates east of the City.

Eunony Bridge at Wagga Wagga

As the Road enters Junee township, heavy vehicles are required to make two 90 degree angle turns one into Hill Street and then the next into Loftus Street. The Hill Street/Loftus Street intersection is particularly tight. Heavy vehicles negotiating the turns cross over the centre lines in order to make the turns, creating unsafe driving environments for other motorists, in what is a heavily trafficked area. This is a high pedestrian area which also includes a primary school and pre-school and the Skate Park.

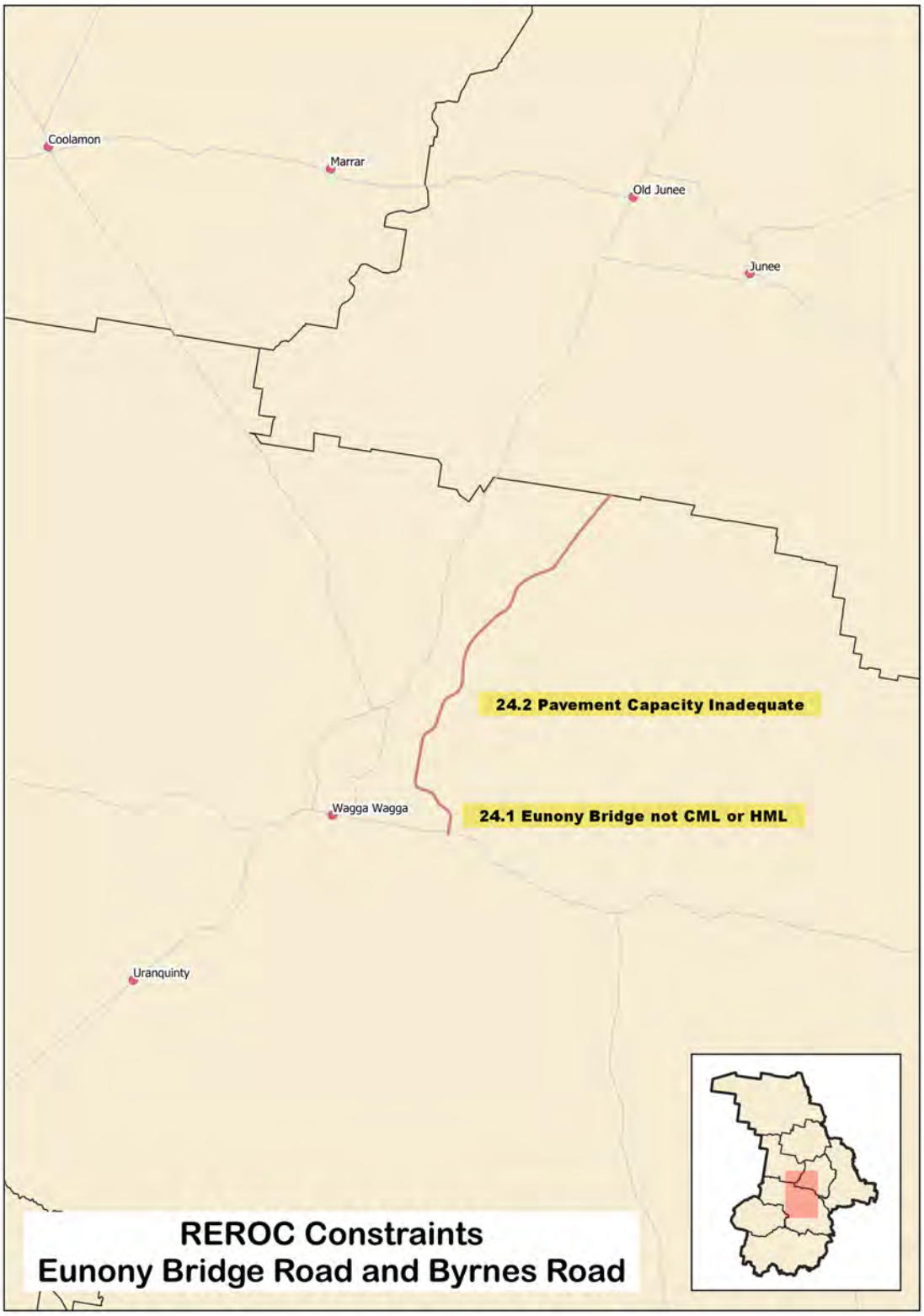
Road realignment through Wrights Oval would remove both 90 degree turns.

CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

24.1 *Eunony Bridge not suitable for use by CML or HML Vehicles* – the bridge does not take HML vehicles this restricts access to Bomen Industrial Area the proposed RIFLH and Qube Logistics which operates at Harefield. HML vehicles must travel through Wagga Wagga on the Sturt Highway and the use the Gobbagumbalin Bridge to access Bomen.

24.2 *Pavement capacity is inadequ*ate – A wider and thicker pavement is required for use by HML vehicles.

24.3 *Realignment at Junee Township through Wrights Oval* - The route is not compliant with reuqired stadnards for a Double turn paths. Heavy vehicles must negotiate two 90 degree bends within a short distance in an urban area.


Coolamon
Marrar
Old Junee
Junee
24.2 Pavement Capacity Inadequate
Wagga Wagga
24.1 Eunony Bridge not CML or HML
Uranquinty
REROC Constraints
Eunony Bridge Road and Byrnes Road

25. HAREFIELD ROAD, JUNEE SHIRE

Major Industries Serviced: Pulp and Paper, General Freight, General Agriculture, Livestock, Grain

Harefield Road joins the Olympic Highway with Byrnes Road; it is the major access route for Visy to the Qube Logistics Intermodal Centre. Transport carrying Visy products make up to 60 journeys to the site each day. A problem with stacking at the railway line was resolved in mid-2015 with a $1.5 million upgrade to the intersection which resulted in the road being relocated further to the west.

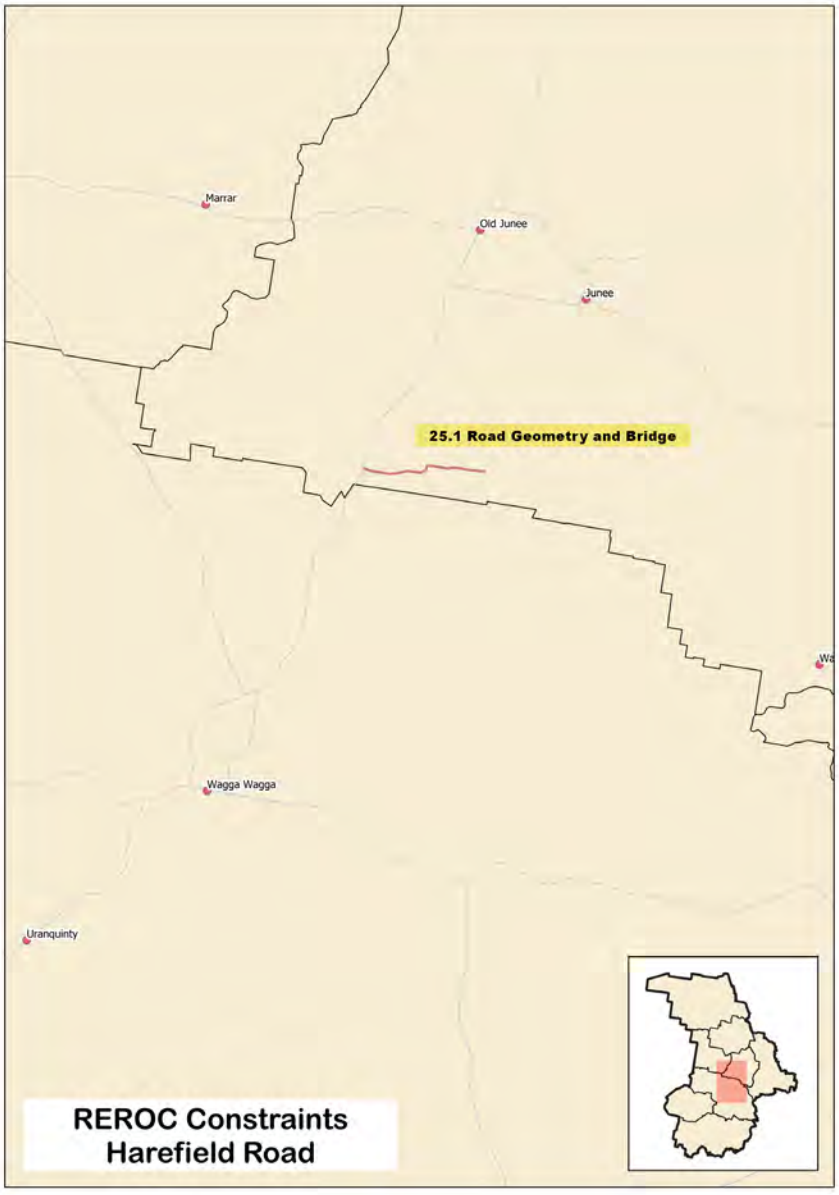
The Road is used as an alternative route to the Olympic Way.

Access to Harefield Road is restricted by the Eunony Bridge; the Bridge is not suitable for HML vehicles. In addition, Visy are exploring the use of A-Doubles on the route but this is not possible without an assessment of the Bridge and improvements to the road geometry and the level crossing. 11 kms of the road requires renewal to bring it to HML standard.

CONSTRAINT IDENTIFICATION:
The following issues are risks to the successful transport of freight from and through the region:

25.1 *Road Geometry and Bridge* – the Eunony Bridge is not assessed and the road geometry does not support the use of HML.

25.2 *Road Renewal Required* - 11kms road requires renewal to appropriate specifications to carry HML.



Qube operates on the Harefield Road

A problem with stacking at Qube was resolved with a major upgrade to Harefield Road diverting the road to the east which allows for stacking to occur.

26. OLD NARRANDERA ROAD, WAGGA WAGGA CITY

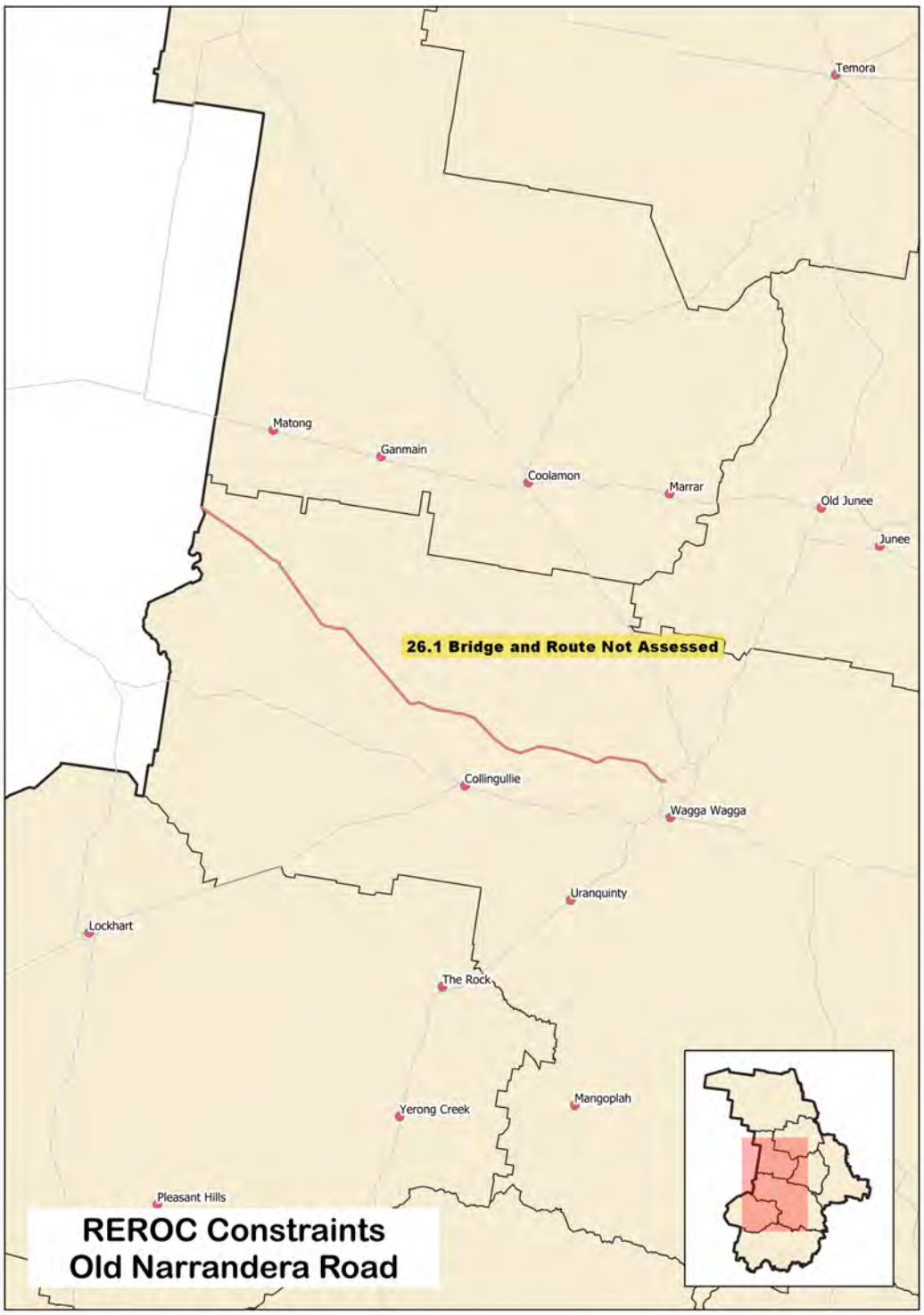
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

This route provides linkage between the rural areas of Wagga, Coolamon and Narrandera LGAs, the Livestock Marketing Centre and proposed intermodal terminal at Bomen. Freight that is carried on the route is predominantly agricultural in nature.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

26.1 *Bridges on the route not assessed* – Bridges over several creeks along the road have not been assessed for use by HML vehicles.



27. DIRNASEER ROAD/SUTTONS LANE, COOTAMUNDRA-GUNDAGAI COUNCIL

Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

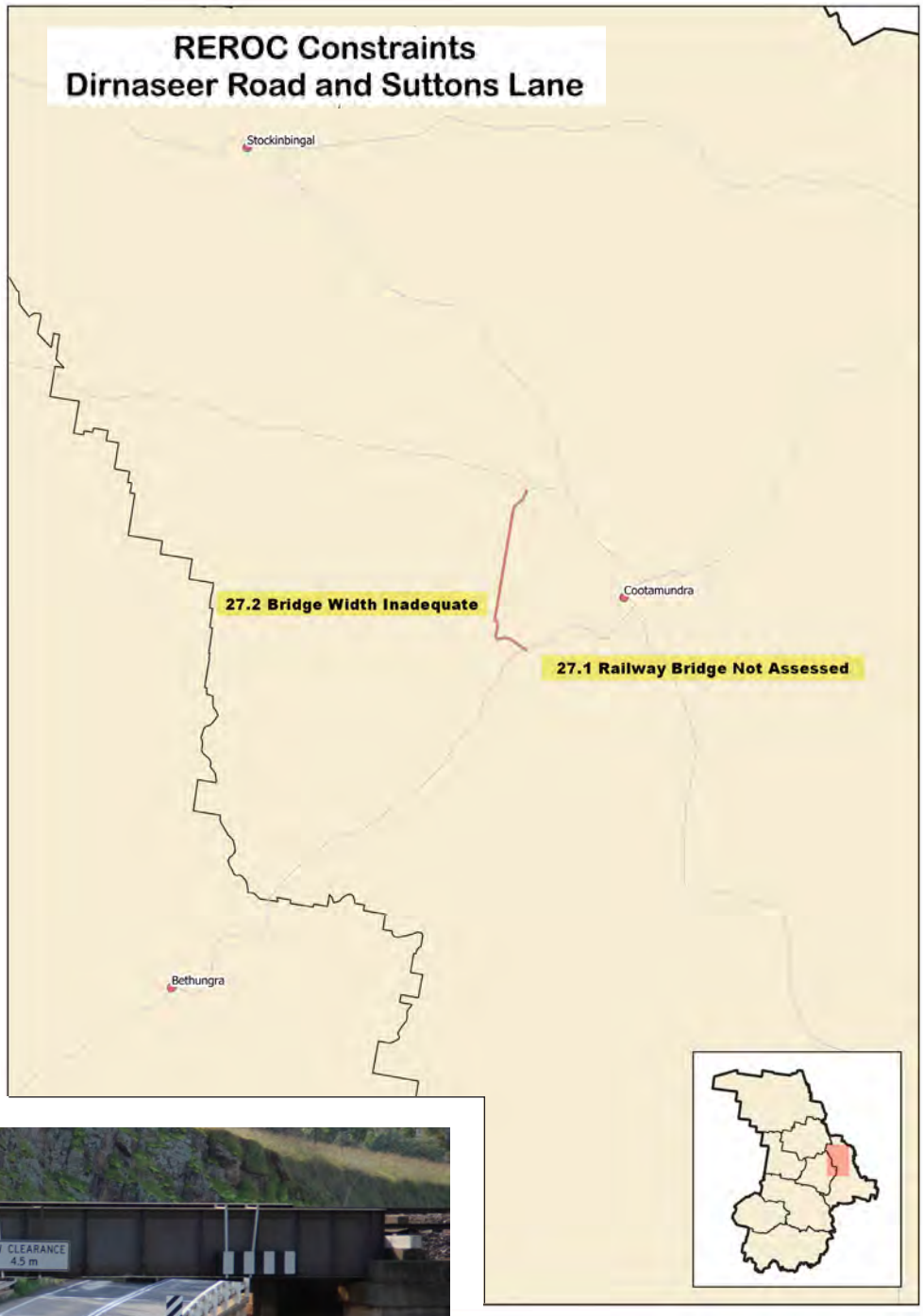
The Lane is the High Vehicle detour for the Olympic Way south of The Gap Bridge. The diversion adds approximately 8 kms to any trip.

While Suttons Lane is a suitable High Vehicle diversion it is not HML approved due to the Railway Bridge on the Main Southern Rail Line. The width of the bridge on the Lane also restricts traffic to single vehicle travel at all times.

CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

27.1 *Railway Bridge Not Assessed* – the railway bridge on Dirnaseer Road has not been assessed for HML

27.2 *Bridge Width* – the width of the bridge restricts traffic to single vehicle travel.



Suttons Lane is the high vehicle detour for the Gap Bridge (pictured) at Cootamundra

28. COPPABELLA RD, GREATER HUME SHIRE

Major Industries Serviced: Forestry, Timber

The road is a critical link for timber industry from plantations to Tumbarumba Road approximately 16 km in length. The South-West Softwoods Working Group has identified the Road as a priority for the industry.

A successful joint funding agreement recently between State Government, Council and the timber industry for $3.5 million has allowed some upgrade of the road to occur however a further $7 million is required to bring the road up to a suitable standard.

The Road is a low standard gravel road with a 4m wide pavement and a single lane bridge on a poor alignment. The Road is under heavy stress from current log movements with failures occurring on an ongoing basis. The Industry estimates that logging volumes will peak at 400,000 tonnes per year in the next 10 years and the Road is currently unsealed for more than half its length.

Funding to upgrade the road and the single lane bridge has been requested from the NSW government via Softwoods Working Group.

CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

36.1 ***Half the Road is Unsealed*** – it also has poor pavement, and vertical and horizontal alignment.

36.2 ***Single Lane Bridge*** – is insufficient to meet the growing demands of industry.

29. GRUBBEN ROAD, GREATER HUME AND LOCKHART SHIRES

Major Industries Serviced: Grain, Livestock

The road links the Olympic Highway and the Grubben Road over the Main Southern Rail Line at Henty.

This link road, although only 60 kilometres long, is the main northern access to the Graincrop Grain Storage facility at Henty. The Road was used extensively by B-Doubles until recently when a length limit was imposed due to a near miss incident with the XPT.

An investigation following the near miss incident determined that the link road was not B-Double graded and did not have sufficient stacking space for long vehicles, leaving Council with no option but to length limit the road. As a result, all long vehicles must now travel through the Henty CBD to access the storage facility causing safety and amenity issues.

Funding has been received to address the inadequate stacking problem at Henty. Funding has been obtained for the re-alignment of the Olympic Way and a new rail crossing. The works are currently underway and should be completed by mid-2020.

1.7kms of the Road, near the Henty Grain Corp Receival Depot is too narrow for large vehicles, with works completed to widen the road in Lockhart Shire and the construction of the Olympic Way rail crossing underway, this section of toad now requires reconstruction.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

29.1 ***Inadequate stacking space/accommodation for long vehicles waiting at the rail head to access the storage facility*** - requires that B-Doubles must travel through the Henty CBD, which adds time to the journey and impacts on the safety and amenity of the CBD.

29.2 ***Narrow Road*** – 1.7 kms of the road requires reconstruction and widening

30. BYGOO ROAD, COOLAMON AND BLAND SHIRES

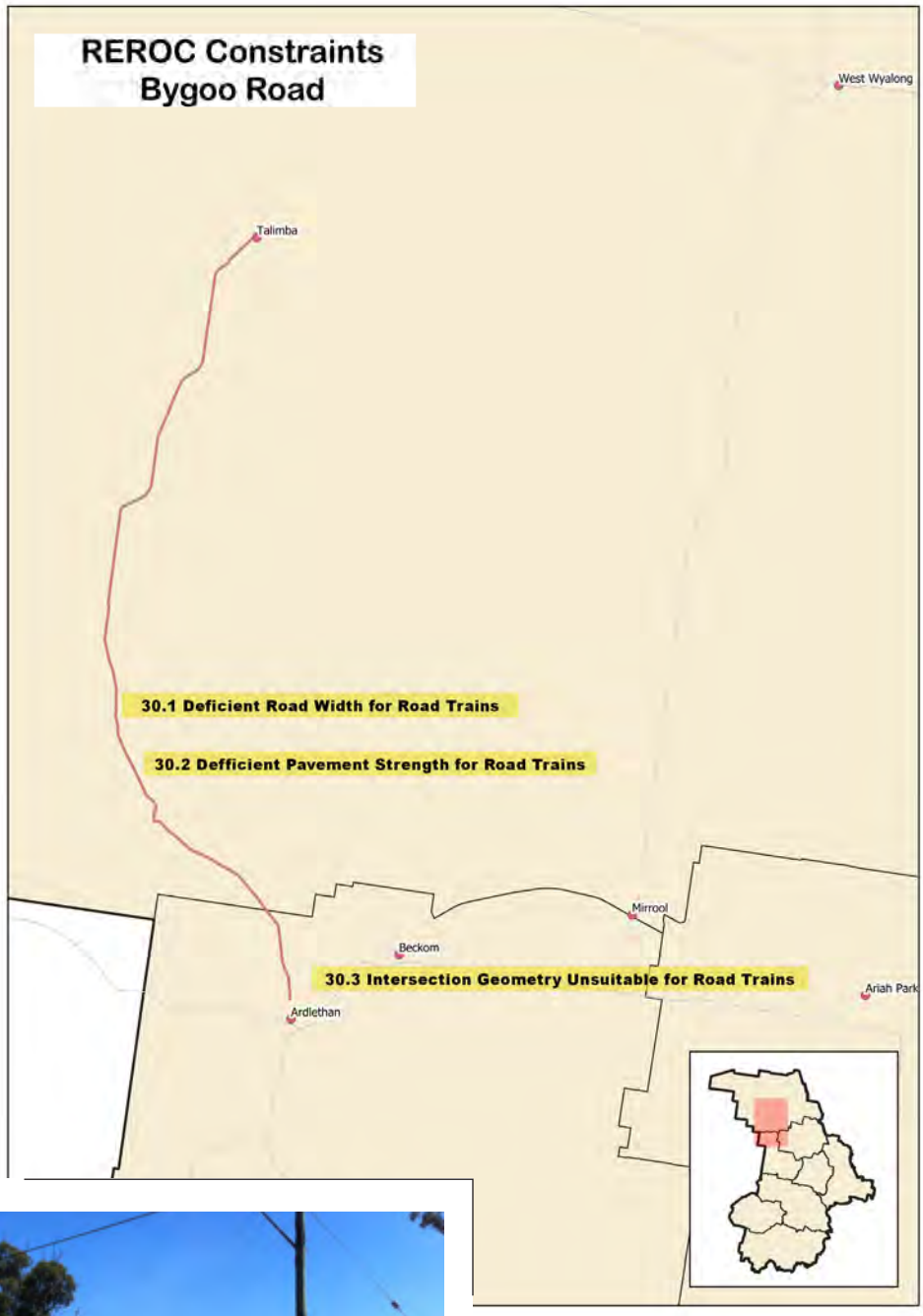
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

Located north of Ardlethan, it is the access road from Talimba in Bland Shire to the Ardlethan wheat silos. The closure of the Talimba branch line has resulted in the use of road trains to transport grain to the Ardlethan grain silos. The issue is that the Bygoo Road, the last link in the journey, is approved for B Double use but not for HML or road trains although there is a blanket approval for their use in Bland Shire.

CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

30.1 *Deficient road width for Road Trains* – approximately 5 kms of the road has insufficient width to support use by road trains.

30.2 *Deficient pavement strength for Road Train and HML Use* – the road is of poor structural standard and is largely earth formed with seal.



Bygoo Road Intersection at Ardlethan

31. RANNOCK RD, COOLAMON SHIRE

Major Industries Serviced: Grain, Livestock, Agricultural produce

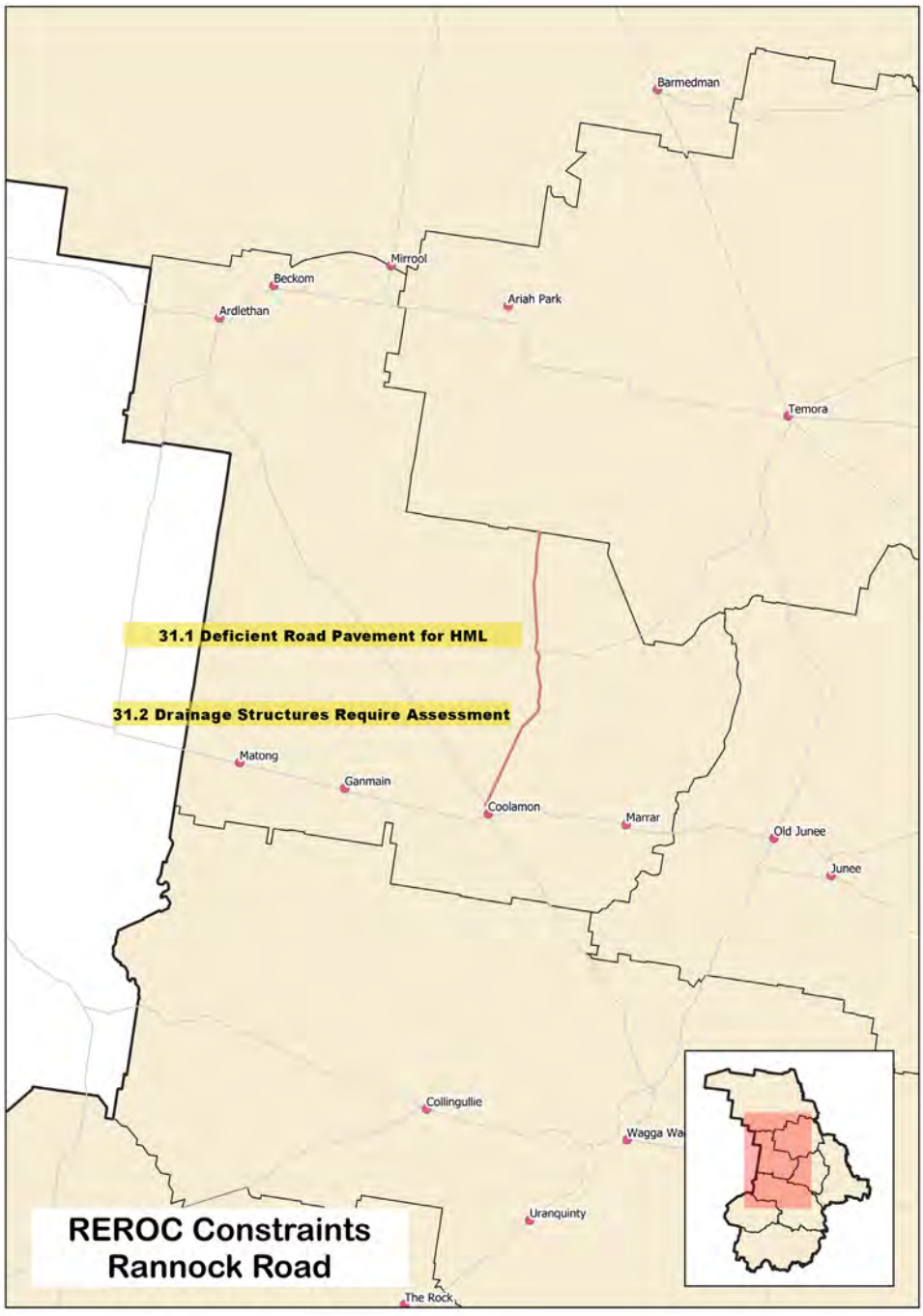
Located north-east of Coolamon, it is the access road for the Rannock area to grain silos located in Temora, Coolamon and Rannock. The Rannock area is located in the centre of general agriculture, livestock and grain production and relies on the Road as the main route to both Coolamon and Temora where major terminals and rail connectivity is achieved.

The Road does not have sufficient pavement strength for road train or HML use; it is of poor structural standard and is largely earth formed with seal. In addition, the drainage structures located at Mimosa creek are of an unknown standard and require assessment to determine if they have the strength to support use by road trains and HML vehicles.

CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

31.1 *Deficient road pavement for HML* – the road has insufficient pavement strength to support use by HML vehicles and road trains.

31.2 *Drainage structures at Mimosa Creek require assessment* – the drainage structure requires assessment to determine if they are capable of supporting HML and road train usage.



32. ADJUNGBILLY ROAD, COOTAMUNDRA-GUNDAGAI SHIRE

Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

The replacement of the Gobarralong Bridge on the Adjungbilly Road means that the bridge is again capable of taking B-Double loads, the bridge had been safety impaired since 2012. However the almost 30km section of the road between Adjungbilly and Gobarralong is not sufficient for HML use.

Works have commenced on improving the road width that are expected to be completed by late 2019 will significantly improve road width, alignment and pavement strength for the 2 km section from Parsons reek Rad to the north.

CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

32.1 *Deficient road width for HML* – the road has insufficient width to support use by HML vehicles.

33. MATONG NORTH ROAD, COOLAMON SHIRE

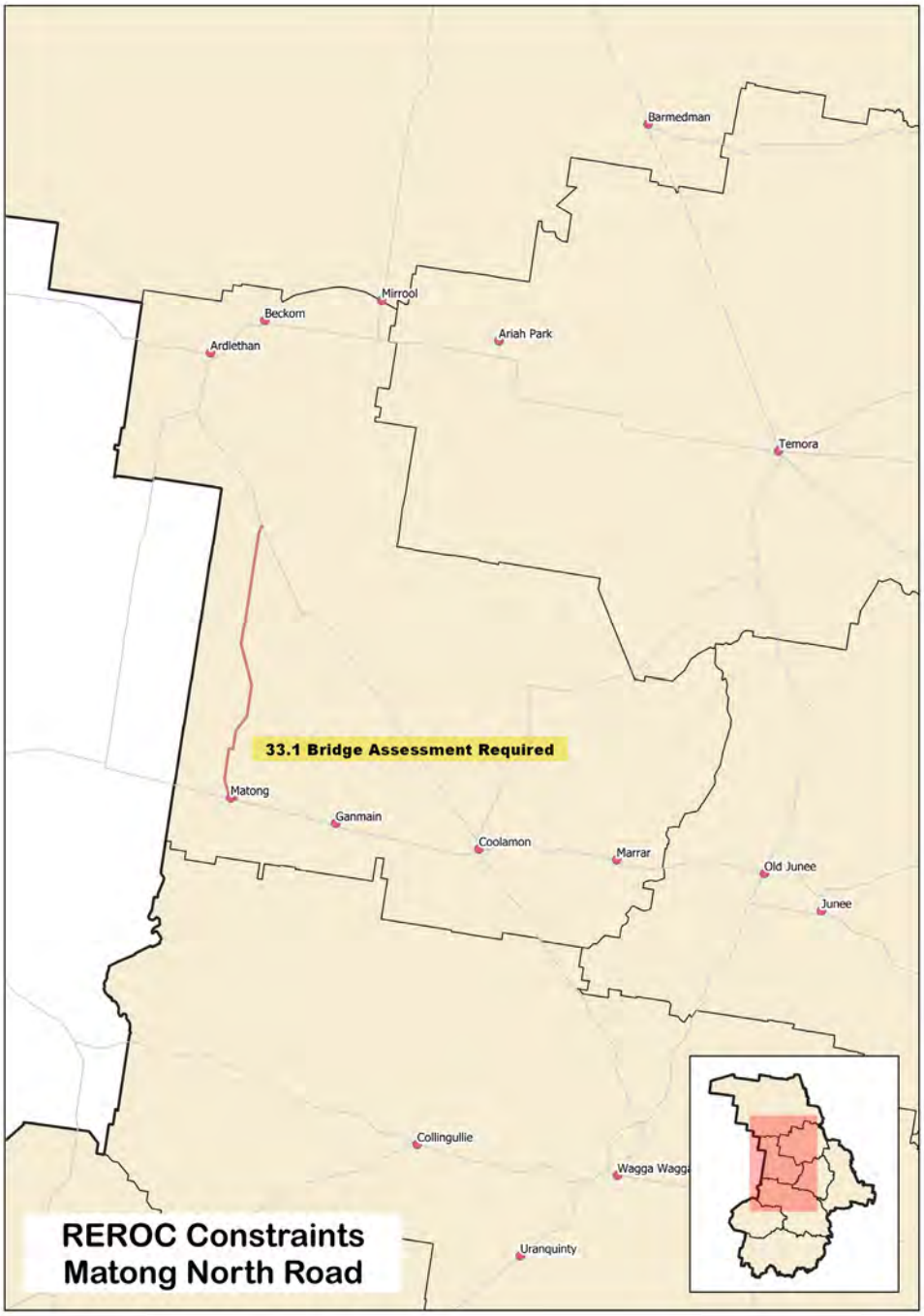
Major Industries Serviced: General freight, Agriculture produce, Livestock

This road links Canola Way with the Ardlethan Road and is an important route for agricultural produce.

The Redbank Creek Bridge has not been assessed and consequently is restricting access for HML vehicles.

CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

33.1 *Bridge Assessment* – Redbank Creek Bridge is not assessed and therefore HML access is restricted.



34. MARRAR SOUTH ROAD, COOLAMON SHIRE

Major Industries Serviced: General freight, Agriculture produce, Livestock, Domestic Light Vehicles

This road links the township of Marrar via the Coolamon Road to Wagga Wagga. It services a significant farming population and feeds into a major grain receival point.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

34.1 *Poor Road Form Geometry* – deficient pavement strength for vehicle use above GML

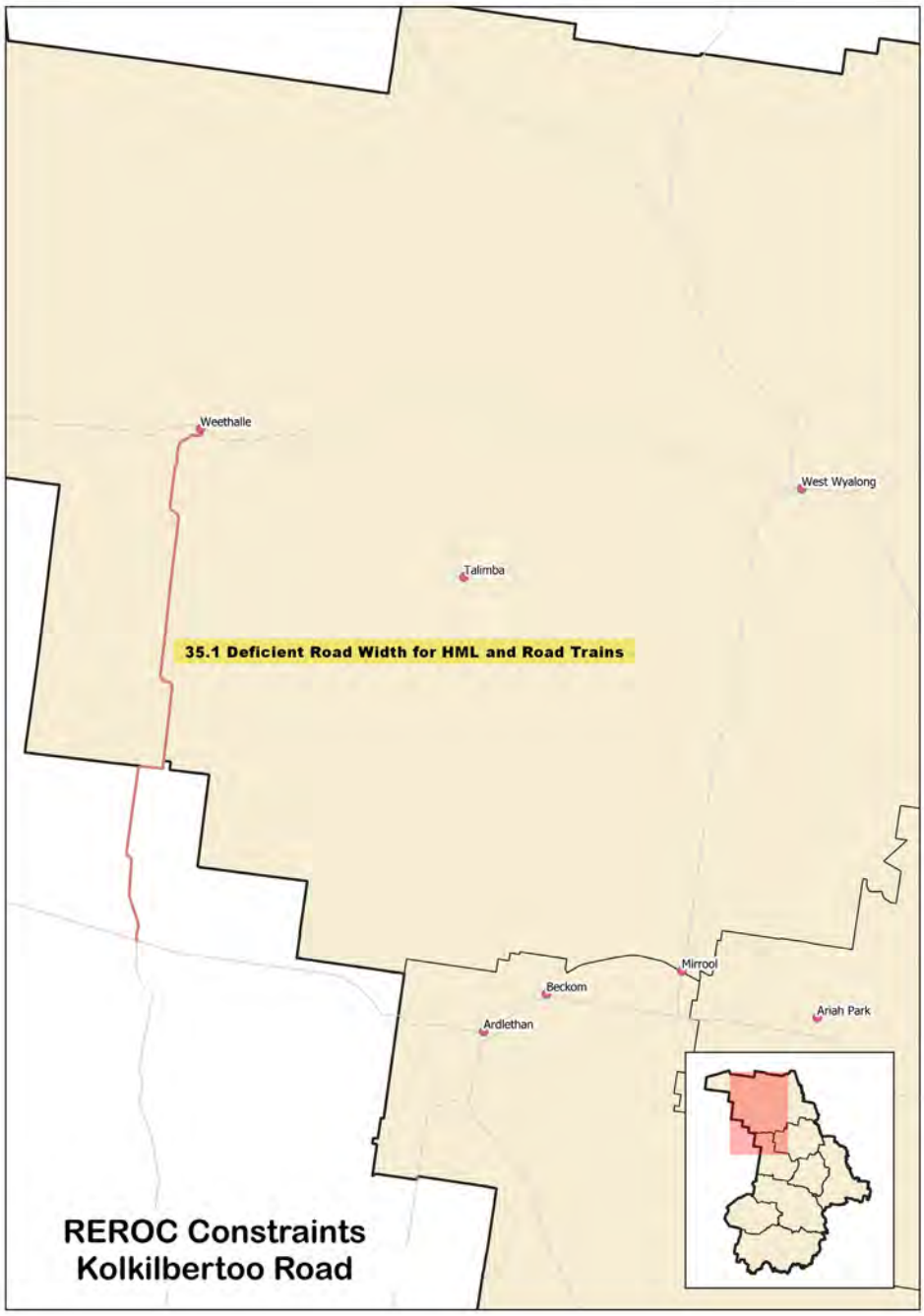
35. KOLKILBERTOO ROAD, BLAND SHIRE

Major Industries Serviced: Grain, Agricultural produce

This road links to Burley Griffin Way at Barellan to the Mid-western Highway at Weethallie.

CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

35.1 *Deficient road width for HML and Road Trains* – road pavement width is deficient and does not meet requirements for HML and Road Trains.



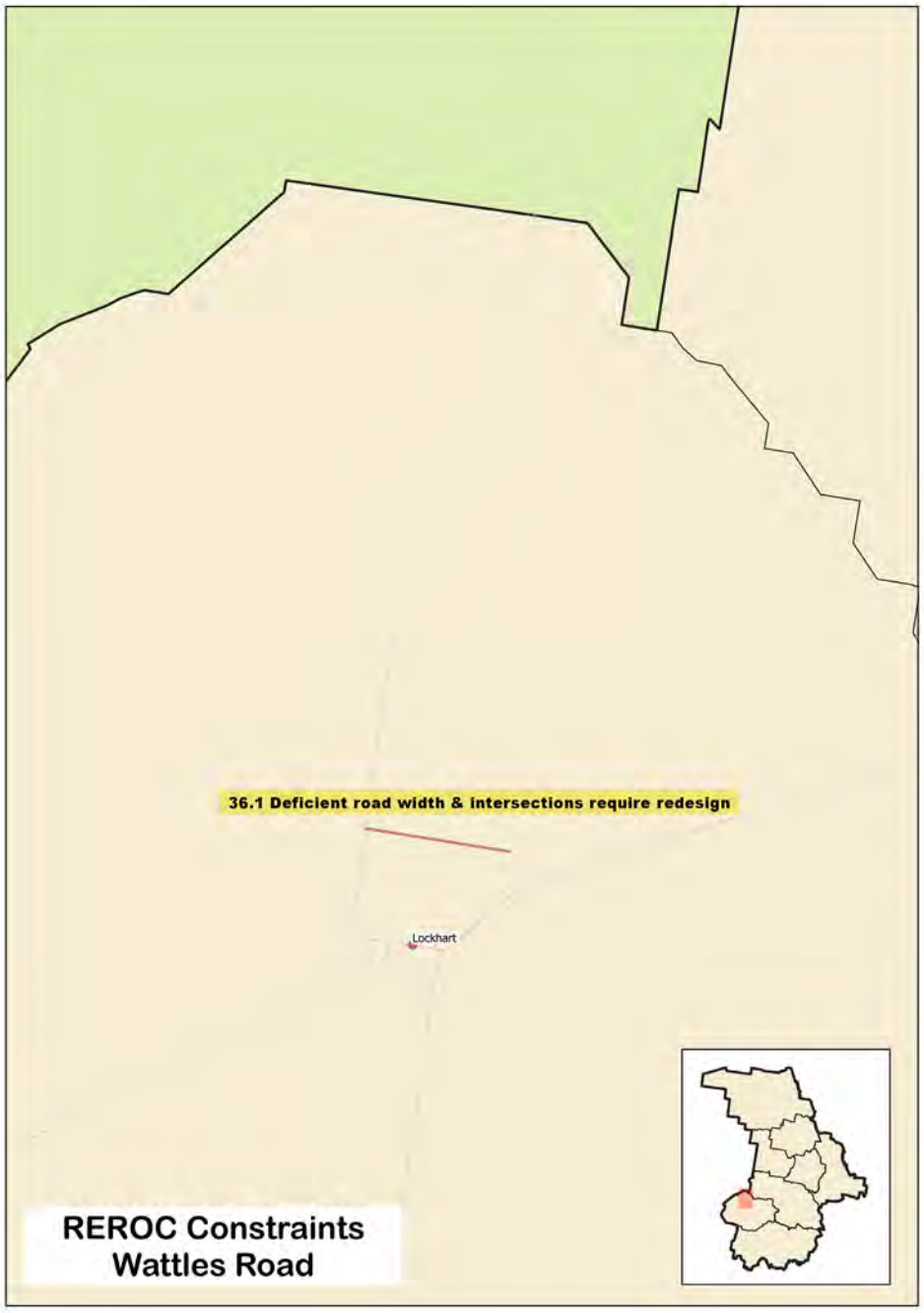
36. WATTLES ROAD, LOCKHART SHIRE

Major Industries Serviced: Grain, Agricultural produce

This road is used by heavy vehicles to bypass the Lockhart Townships as they travel from south-west towards Wagga Wagga. The Road does not meet requirements for heavy vehicle use, it requires widening and sealing and two intersections, between Wattles Rd and Lockhart Kywong Rd and Tinamba Land & Lockhart Collingullie Road, need redesigning.

CONSTRAINT IDENTIFICATION:
The following are identified as risks to the successful transport of freight from and through the region.

36.1 ***Deficient road width and pavement and intersections require redesign*** – the Road does not meet requirements for HML. The Road pavement width is deficient, the pavement requires sealing and the intersections require redesign.



PART FIVE: RAIL NETWORKS IN THE EASTERN RIVERINA

The achievement of Goal Two of the Plan, the implementation of integrated transport solutions for the Region is significant to achieving efficient and effective freight outcomes. Therefore it is imperative that rail freight be factored into planning for the region. The following map shows the current operational and non-operational rail lines in the Region as well as the planned route for the Inland Rail announced by the Minister in September 2017.

The Main Southern Line runs through the REROC region.

The Main Southern Rail line dissects the region and in a hub and spoke fashion it is fed by a number of branch lines.

There is increasing freight travelling by rail to both Port of Melbourne and Port Botany. Port of Melbourne is currently the dominate player for the receipt of rail freight. The Qube Facility at Harefield and the proposed Intermodal Hubs at Wagga Wagga and the proposed establishment of a new facility at Cootamundra are likely to increase the demand for rail freight. In addition, the opening of the Intermodal Freight Terminal at Wumbulgal in Leeton Shire in mid-2015 and the development of a second hub at Widgelli in Griffith will add to the amount of freight moving from the west to utilise the Main Southern Line. Nevertheless, the region's rail infrastructure is under-utilised, closures of branch lines over the last fifteen years has forced an increasing number of grain trucks onto roads, many of them HML vehicles, including road trains.

These are roads that were never designed to withstand continuous use by heavy vehicles. The result has been an accelerated deterioration of the road network leading to significant inefficiencies in the carriage of freight. In addition, as many of the roads that are bearing the increased usage fall within the responsibility of local government, the consequence is that the cost of moving freight has been shifted from the rail network (where it could be recouped by users) to the road network where it is met by local government. REROC has consistently argued against the closure of branch lines because of the inefficiencies that are created for the freight task and the cost shift to local government.

The Productivity Commission recognised the cost of heavy vehicles using rural roads in 2006, writing "the cost of heavy trucks using many rural local roads and lightly-used arterials is likely to be well above the network average charge.[13]" The Inquiry also noted that some bulk tasks on rail like grain haulage were also subsidised. The Commission also noted the external costs of road freight such as accident costs, environmental impacts; greenhouse gas emissions and congestion were also greater than rail. [14]

A Report prepared for the Productivity Commission by CRA International noted that "local roads, being constructed generally to a lower standard strength, would be more susceptible than arterial roads to usage-related damage." [15]

The last significant review of the role of branch lines in the freight task occurred in 2004 as part of the Grain Infrastructure Advisory Committee (GIAC) Report into Rail/Road Options for Grain Logistics. At that time GIAC estimated that a branch line carried on average 88,000 tonnes of product which equated to 2,300 truckloads. This in turn translated to 4,600 truck movements (assuming that trucks moving grain returned to their point of origin).

[13]Productivity Commission Inquiry, Road and Rail Freight Infrastructure Pricing, No. 41, December 2006, xxxvi, [14] Ibid., xxxiv
[15]CRA International, Two Case Studies on Road v Rail Freight Costs, 25 May 2006, pg. 3.


Naradhan
Weethalle
West Wyalong
Talimba
Barmedman
Griffith
Beckom
Mirrool
Ariah Park
Ardlethan
Temora
Springdale
Stockinbingal
Wallendbeen
Cootamundra
Narrandera
Matong
Ganmain
Coolamon
Marrar
Old Junee
Illabo
Bethungra
Junee
Wantabadgery
Nangus
Gundagai
Collingullie
Wagga Wagga
Uranquinty
Lockhart
The Rock
Tarcutta
Tumut
Yerong Creek
Mangoplah
Pleasant Hills
Humula
Henty
Culcairn
Morven
Walbundrie
Holbrook
Walla Walla
Tumbarumba
Brocklesby
Burrumbuttock
Gerogery
Woomargama
Jindera
Albury
NSW Railway
Abandoned
Operational
Inland Rail
Silos
REROC
Railway Status with Silos

The above map clearly shows the large number of silos that are located on non-operational branch lines. REROC has estimated that the following additional truck movements would have resulted from branch line closures in the region:

Branch line	Average Tonnes	Truck Movements	Road Length (kms)	Additional kms travelled
Burcher-West Wyalong	30000	1,552.80	40	62,111.80
Ungarie-West Wyalong	41000	2,122.15	40	84,886.13
Naradhan-Ungarie	60400	3,126.29	106	331,387.16
Rankins Springs-Barmedman	80000	4,140.79	193	799,171.84
Lake Cargelligo-Ungarie	112000	5,797.10	116	672,463.77
Boree Creek-The Rock	88000	4,554.87	59	268,737.06
Total		**21,294.00**		**2,218,757.76**

Most of the affected road networks are local roads meaning that local government is meeting the additional maintenance costs that result from the increased traffic movements. In 2004 GIAC estimated that cost recovery on branch lines was 6 per cent or less and that it would increase to only 9 per cent if branch lines were upgraded. GIAC concluded that branch lines would only be competitive with road if it were subsidised[16]. However, Member Councils argue that road freight is being subsidised, by councils and ratepayers who are picking up the cost of increased use of local roads for grain freight.

The REROC member councils believe that the challenges of moving freight across large geographic regions to port can be best met by the efficient and effective use of rail supported by a series of well-placed intermodal hubs. Operational branch lines are an important part of that solution and therefore should be given a higher priority at the State planning level.

[16] Australia Government, Department of Infrastructure, Transport, Regional Development and Local Government, Road and Rail Freight: Competitors or Complements?, July 2009.

APPENDIX ONE – MULTI-CRITERIA ASSESSMENT MATRIX

Member Councils developed and agreed to the use of a weighted matrix to assess each of the 35 freight routes identified in the Plan. The intention was to use the matrix to categorise the routes according to the impact the route's constraint or constraints had on the efficient movement of transport. Where a route traversed more than one LGA the council in each LGA assessed the section of the route as it pertained to their LGA. Consequently, a route may appear more than once on the Route Constraints Assessment because it traverses more than one LGA and in each of those LGAs there is a constraint that impacts on freight transport. In order to ensure uniformity in the assessment process, each criteria and score was given a descriptor to guide the scoring process. The assessment matrix is reproduced in Appendix One.

The goal of the assessment is to inform investment decisions in relation roads in the region. The order presented represents the scoring achieved using the matrix, however all the listed roads are integral to the freight task in the REROC region and where an opportunity presents for investment in any one of the routes, which will address some or all of its constraints, then REROC will pursue that opportunity.

Road Usage Level (Most recent Traffic Counts)

0	
1	Less than 250 per day
2	Between 251 and 500 vehicles
3	Between 501 and 1000 vehicles per day
4	Between 1000 and 3000 vehicles per day
5	More than 3000 vehicles per day

Crash History (Last 5 years)

0	No crash history
1	Few crashes, little property damage, no major injuries and no fatalities
2	Some crash history, some property damage, no major injuries and no fatalities
3	Regular crashes, resulting in property damage, some major injuries but no fatalities
4	Regular crashes, resulting in property damage, major injuries but no fatalities
5	Regular crashes, resulting in property damage, major injuries and some fatalities

Impact on Traffic if Road was Closed for 24 hours

0	No impact
1	Little or no impact and limited costs to industry and community
2	
3	Significant impact and costs to industry
4	
5	Major impact and costs to industry and community

Grain Freight Route

0	Not used for grain freight
1	Less than 20% of grain trucks use route
2	Between 20% and 50% of grain freight use route
3	Between 50% and 70% of grain freight use route
4	Between 70% and 90% of grain freight use route
5	More than 90% of grain trucks use route

Livestock Freight Route

0	Not used for livestock freight
1	Less than 20% of livestock freight use route
2	Between 20% and 50% of livestock truck freights use route
3	Between 50% and 70% of livestock truck freight use route
4	Between 70% and 80% of livestock truck freight use route
5	90% or more livestock truck freight use route

Timber Freight Route

0	Not used for timber freight
1	Less than 20% of timber truck freight use route
2	Between 20% and 50% of timber truck freight use route
3	Between 50% and 70% of timber truck freight use route
4	Between 70% and 80% of timber truck freight use route
5	90% or more of timber truck freight use route

HML Route

0	Not a designated HML route
1	HML route used rarely by HML
2	HML route used sometimes by HML vehicles
3	HML route used regularly
4	HML route used consistently by HML
5	HML route used heavily by HML

B Double Route

0	Not a B double route
1	B Double route used rarely by B Doubles
2	B Double route used sometimes by B Double vehicles
3	B Double route used regularly
4	B Double route used consistently by B Doubles
5	B Double route used heavily by B Doubles

Road train and Other Restricted Access Vehicles (excluding B Doubles) Route

0	Not a road train route
1	Road Train route rarely used by Road Train
2	Road Train route sometimes used by Road Train
3	Road Train route used by Road Train
4	Road Train route consistently used by Road Train
5	Road Train route used heavily by Road Train

Recognised as a Regional Route of Economic Significance

0	Carries less than $10 million in freight per annum
1	Carries between $10 million and $50 million in freight per annum
2	Carries between $50 million and $100 million in freight per annum
3	Carries between $100 million and $500 million in freight per annum
4	Carries between $100 million and $500 million in freight per annum
5	Carries in excess of $1 billion in freight per annum

Impact of Road Constraints on Industry (Economic Impacts)

0	No constraint
1	Industry might incur additional costs if the route was used
2	Industry would incur additional costs if it used the route
3	Industry is incurring additional costs as a direct result of the road's...
4	Industry is incurring significant additional costs as a direct result of...
5	Industry is incurring substantial additional costs as a direct result of...

The Road should be opened to RAVs

0	Does not apply
1	Opening of road would provide no benefits
2	Opening road would provide limited benefits to the LGA but little or no benefits to the region
3	Opening road would provide identifiable economic or social benefits to the LGA and...
4	Opening road would provide identifiable economic and social benefits to the LGA and...
5	Opening road would provide identifiable economic and social benefits to the LGA and...

Part of a Designated RMS Bypass Route

0	Not a bypass route
1	Used as a bypass for very low trafficked roads
2	Used as a bypass for low trafficked roads
3	Used as a bypass for medium trafficked roads
4	Used as a bypass for High Trafficked roads
5	Used as a bypass for very high trafficked roads

Impact on Town Amenity

0	No impact on town amenity
1	Minimal impact on town amenity
2	
3	Significant impact on town amenity
4	
5	Major impact on town amenity

Established Tourism Route

0	Not a tourism route
1	Road rarely used by tourists
2	Route sometimes used by tourists
3	Road regularly used by tourists
4	Road consistently used by tourists
5	Road always used by tourists

Identified in the NSW Regional Transport Plan

0	Not in the Regional Transport Plan
1	Mentioned in the Transport Plan but no action recommended
2	Mentioned in the Master Plan, limited action recommended
3	Identified in the Plan for action in the long term
4	Identified in the Plan for action in the medium term
5	Singled out for immediate action in the transport plan

Identified in the NSW Master Transport Plan

0	Not mentioned in the master plan
1	Mentioned in the Transport Plan but no action recommended
2	Mentioned in the master plan, limited action recommended
3	Identified in the Plan for action in the long term
4	Identified in the Plan for action in the medium term
5	Singled out for immediate action in the major plan

Identified in the Riverina Regional Action Plan

0	Not mentioned
1	Mentioned in the Transport plan but no action recommended
2	Mentioned in the master plan limited action recommended
3	Identified in the Plan for action in the long term
4	Identified in the Plan for action in the medium term
5	Identified for immediate action in the Plan

Identified in the NSW Freight and Ports' Strategy

0	Not mentioned
1	Mentioned in the Transport Plan
2	Mentioned in the Master Plan
3	Identified in the Plan for action in the long term
4	Identified in the Plan for action in the medium term
5	Singled out for immediate action in the Plan

APPENDIX ONE – MULTI-CRITERIA ASSESSMENT MATRIX

ROAD NAME:	Does not apply	Very Low	Low	Medium	High	Very High	Multiply by Weighting	Total	Comments
Criteria	Score = 0	Score = 1	Score = 2	Score = 3	Score =4	Score = 5			
Road Usage Level (Most recent Traffic Counts)							5	0	
Crash History (Last 5 years)							5	0	
Impact on Traffic if Road was Closed for 24 hours							4	0	
Grain Freight Route							4	0	
Livestock Freight Route							4	0	
Timber Freight Route							4	0	
HML Route							5	0	
B Double Route							5	0	
Road train and Other Restricted Access Vehicles (excluding B Doubles) Route							3	0	
Recognised as a Regional Route of Economic Significance							3	0	
Impact of Road Constraints on Industry (Economic Impacts)							3	0	
The Road should be opened to RAVs							5	0	
Part of a Designated RMS Bypass Route							2	0	
Impact on Town Amenity							2	0	
Established Tourism Route							3	0	
Identified in the NSW Regional Transport Plan							1	0	
Identified in the NSW Master Transport Plan							1	0	
Identified in the Riverina Regional Action Plan							1	0	
Identified in the NSW Freight and Ports' Strategy							1	0	
TOTAL SCORE									
Ability of Rail to Address the Road Constraints									

GLOSSARY OF TERMS

AADT – Average Annual Daily Traffic

CML – Concessional Mass Limits

GIAC – Grain Infrastructure Advisory Committee

High Vehicle – is a vehicle between 4.3 and 4.6 metres in height e.g. triple decker stock truck, a car carrier.

Higher Mass Limits – HML provides a significant increase in the productivity of road freight transport vehicles as detailed below:

Vehicle Configuration	Standard (Gross) MassLimit*	Concessional Mass Limit(CML)*	Higher Mass Limit (HML)*
19 metres (6 axle) semi-trailer	42.5 tonnes	43.5 tonnes	45.5 tonnes
25/26 metres (9 axle) B- Double	62.5 tonnes	64.5 tonnes	68 tonnes
Double Road Train	79 tonnes	81 tonnes	85 tonnes

HML – Higher Mass Limits

LGA – Local Government Area

MIA – Murrumbidgee Irrigation Area

REROC – Riverina Eastern Regional Organisation of Councils

RivJO – Riverina Joint Organisation

RIFLH – Riverina Inland Freight Logistics Hub

RMS – NSW Roads and Maritime Services

RIVERINA JO
JOINT ORGANISATION

Mail: PO Box 646
Wagga Wagga, NSW, 2650

Phone: 02 6931 9050

Fax: 02 6931 9040

Email: eo@riverinajo.nsw.gov.au

REROC
RIVERINA EASTERN REGIONAL ORGANISATION OF COUNCILS

Address: 81-83 Johnston Street,
Wagga Wagga NSW 2650

Mail: PO Box 646,
Wagga Wagga NSW 2650

Phone: (02) 6931 9050

Fax: (02) 6931 9040

Email: mail@reroc.com.au